REPORT RESUMES

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REPORT TO WILSON COLLEGE. A PROGRAM FOR PHYSICAL PLANT AND LAND DEVELOPMENT.

BY- TAYLOR, ROGER

TAYLOR, LIEBERFELD AND HELDMAN INC., NEW YORK, N.Y

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IN ORDER TO DEVELOP A PHYSICAL PLANT PROGRAM WHICH WOULD REMEDY THE PRESENT DEFICIENCIES OF THE EDUCATIONAL FACILITIES AT WILSON COLLEGE AND SIMULTANEOUSLY INDICATE THE IMPLICATIONS OF HIGHER ENROLLMENT LEVELS, A PLANNING PROJECT USING A CONSULTANT FIRM WAS INSTITUTED. THE AREAS OF INVESTIGATION PRESENTED IN THE ANALYSIS WERE AS FOLLOWS--(1) PROJECT THE ACTIVITY LEVELS ASSOCIATED WITH THE ANTICIPATED INSTRUCTIONAL PROGRAM, (2) DETERMINE THE CORRESPONDING SPACE REQUIREMENTS, (3) INDICATE THE RELATIONSHIP BETWEEN THE CAPACITY OF THE EXISTING PLANT AND THE PROJECTED REQUIREMENTS, (4) DETERMINE THE EXTENT OF ADDITIONAL CONSTRUCTION NECESSARY, (5) RECOMMEND THE DISPOSITION OF COLLEGE ACTIVITIES AND FACILITIES ON THE CAMPUS, THE RECOMMENDATIONS TO BE REFLECTED IN A MASTER PLAN, (6) DETERMINE THE FINANCIAL IMPLICATIONS OF THE ENTIRE SCHEME. DOCUMENTATION OF THESE FACTORS ARE PRESENTED THROUGHOUT THE REPORT. RECOMMENDATIONS WERE MADE THAT WOULD PROVIDE ADEQUATE FACILITIES FOR PROJECTED ACTIVITIES AND AT THE SAME TIME, INSURE THAT MAXIMUM VALUE WILL BE OBTAINED FROM THE CONSIDERABLE INVESTMENT ALREADY COMMITTED TO EXISTING FACILITIES AND FROM THE ADDITIONAL FUNDS REQUIRED FOR FUTURE CONSTRUCTION. (BH)

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REPORT TO WILSON COLLEGE

A Program for Physical Plant and Land Development

TAYLOR, LIEBERFELD AND HELDMAN, INC.

NEW YORK
MAY 1967
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REPORT TO WILSON COLLEGE

A Program for Physical Plant and Land Development

TAYLOR, LIEBERFELD AND HELDMAN, INC.

CHAPTER 1

INTRODUCTION, CONCLUSIONS AND RECOMMENDATIONS

A. Introduction

Over the past decade the enrollment at Wilson College has increased from 400 to more than 700 students. However, aside from dormitory facilities, the physical plant of the College has not kept pace with the rapidly increasing enrollment.

The result is that the physical plant, as presently constituted, has or will soon reach the limit of its potential. In addition to increasing pressures on instructional facilities, library, food service, student recreation, physical education, and administrative facilities all will soon reach the limit of their capacities. In some instances the limit has already been reached; at the same time, facilities needed for some purposes do not now exist. The new Science Building, under construction at the time this report is being written, will relieve some of these pressures, but others will remain.

In July 1966, in order to develop a physical plant program which would remedy present deficiencies, and at the same time show the implications of moving to higher levels of enrollment, the College engaged the services of Taylor, Lieberfeld and Heldman, Inc. as planning consultants. The project was to start at the beginning of the fall term, 1966-67.

Specifically, the Consultants were asked to accomplish the following tasks:

1. Project the activity levels associated with the anticipated instructional program;

2. determine the corresponding space requirements;

3. indicate the relationship between the capacity of the existing plant and the projected requirements;

4. determine the extent of additional construction necessary;

5. recommend the disposition of College activities and facilities on the campus, the recommendations to be reflected in a master plan;

6. determine the financial implications of the entire scheme.

The analysis was to be made for three target enrollment levels: 800 students, 1,000 students and 1,200 students. All College activities - academic, extracurricular, administrative and residential - were to be included within the scope of the study. This study is therefore concerned with all physical elements of the College: land, buildings, and roads.

After an initial field survey at the site, during which the Consultants conducted a physical survey of all existing facilities, interviewed more than 40 heads of academic, administrative and other departments, and gathered the necessary historical data, the Consultants performed the necessary analyses to accomplish these tasks. This report presents the results of their work.

B. Conclusions and Recommendations

The principal conclusions and recommendations are as follows.

1. Much space in present facilities will become inadequate or unsuitable as the College moves to higher enrollment levels. Deficiencies in these categories exist in classroom space, studio space, auditoria. faculty and administrative offices, physical education, and several other classifications.

2. Requirements for land, already at a premium at the present site, will increase concomitantly with the increase in physical plant. The Consultants therefore recommend that the College acquire 18.1 acres of additional land across the Conococheague Creek to accommodate the requirements of the physical education program. To provide access to this property, the Consultants also recommend that the College acquire 2.5 acres south of the Creek.

3. As indicated in Table 1-1, the total net area[a] requirements of the College at the 800-student enrollment level are 208,235 square feet. For the 1,000-student enrollment level 255,795 square feet will be required. At the 1,200-student enrollment level 305,895 square feet will be needed. These figures do not include dormitory space presently on the campus, but do include the additional dormitory space which will be required at the target enrollment levels.

The net space requirements for non-residential activities are 208,235 square feet, or about 260 square feet per student at the 800 student level, 228,890 square feet, or approximately 229 square feet per student at the 1,000-student enrollment level and 250,195 square feet, or 208 square feet per student at the 1,200 enrollment level. Thus, the College

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[a] Net and gross area are defined in Chapter 9.

1-1. Wilson College. Summary of Space Requirements at Target Enrollments of 800, 1,000 and 1,200 Students

	800	1,000	1,200
Academic departments	82040	89465	98780
Supporting academic facilities	54860	59785	64230
Administrative departments	12480	13385	13850
Staff and student service space	58855	93160	129035
Total	208235	255795	305895

will make more efficient use of its plant at the higher levels.

4. To some degree, a similar pattern prevails in the projections of teaching staff. The projection of full-time equivalent faculty for 800 students indicates a faculty-student ratio of 1:10.39; the faculty projection for 1,000 students is 1:11.24, and for 1,200 students is 1:11.54. Thus, the higher enrollment levels yield a more economical use of staff resources.

5. The estimated total cost of the development program - new buildings, alterations, site improvements, and miscellaneous elements required to implement the program - for 800 students is 4.66 million dollars, for 1,000 students is 6.20 million dollars, and for 1,200 students is 7.84 million dollars.

C. Building Program Summaries

Table 1-2 summarizes the projected occupancy patterns for existing and proposed construction at the target enrollment levels by building, while Table 1-3 summarizes the occupancy patterns by departments. Required new construction is summarized in tabular form in Chapter 9, Table 9-11.

D. Organization to the Report

The succeeding chapters of this report set forth the analyses that led to the above conclusions. Chapter 2 describes the method of estimating the projected instructional workload at the three target enrollment levels. Chapter 3 discusses the method of arriving at the requirements for teaching staff and classroom space to support the activity levels. Chapter 4 summarizes the

1-2. Wilson College. Existing and Recommended Building Occupancy Patterns; Nonresidential Space; by Building

Existing Buildings	Occupancy 1966-67	Occupancy Target Enrollment Levels
Alumnae Hall	Fine Arts	Classrooms Faculty offices
Biology Building	Biology	Demolish
Buildings and Grounds	Buildings and Grounds	Demolish
Davison Hall	Physical Education Dance Studio	Administrative offices Dance Studio
Dining Hall	Dining Laundry	Dining
Edgar Hall	Administrative offices Post Office Central Duplicating	Administrative offices Central Duplicating
Fine Arts Studio	Fine Arts	Buildings and Grounds
Gymnasium and Pool	Physical Education	Demolish ?
Infirmary	Infirmary	Faculty Club
Laird Hall	Alumnae office Auditorium	Alumnae office Student Center
Lortz Hall	Chemistry Physics	Psychology Classrooms Faculty offices
Norland Hall	President's office Financial Aid office Guest rooms Faculty residence	President's office Guest rooms Faculty residence
Stewart Library	Library	Library
Thomson Hall	Music Admissions office Snack bar Bookstore Student offices Lounge	Music Admissions office Bookstore Administrative offices

(Continued)

1-2. (Continued)

Existing Buildings	Occupancy 1966-67	Occupancy Target Enrollment Levels
Warfield Hall	Classrooms Faculty offices Psychology laboratory	Classrooms Faculty offices
New Buildings		
Buildings and Grounds		New Buildings and Grounds
Fine Arts Center with Theater-Auditorium		Fine Arts Classrooms Faculty offices Auditorium (also Theater-Recital Hall) Museum
Infirmary		Infirmary
Laird addition		Student Center Post Office Lunch bar
Laundry Building		Laundry
Library addition		Library Audio Visual Center
Physical Education		New Gymnasium and Pool
Science Building		Biology Chemistry Mathematics Physics Classrooms Faculty offices

1-3. Wilson College. Existing and Recommended Building Occupancy Patterns; Nonresidential Space; Selected Departments

Department	Occupancy 1966-67	Occupancy Target Enrollment Levels
Administrative Departments[a]	Edgar Hall Norland Hall Thomson Hall	Edgar Hall Davison Hall Thomson Hall Norland Hall
Academic Departments		
Science Departments	Biology Building Lortz Hall	New Science Building
Psychology	Warfield Hall Gymnasium	Lortz Hall
Fine Arts	Alumnae Hall Art Studio	Fine Arts Center
Music	Thomson Hall	Thomson Hall
Other Academic Departments[b]	Warfield Hall	Warfield Hall Alumnae Hall Lortz Hall New Science Building Fine Arts Center
Supporting space		
Library	Library	Library Library addition
Language laboratory	Library	Library addition
Student activities and recreation		Laird Hall Laird addition
Lunch bar	Thomson Hall	Laird Hall
Post Office	Edgar Hall	Laird Hall
Bookstore	Thomson Hall	Thomson Hall
Infirmary	Old Infirmary	New Infirmary
Faculty Club		Old Infirmary
Food service	Dining Hall	Dining Hall
Laundry	Dining Hall	New Laundry Building
Physical Education	Old Gymnasium Davison Hall	New Gymnasium Davison Hall[c]
Buildings and Grounds	Buildings and Grounds	Art Studio and addition

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[a] Excluding the Admissions and Alumnae offices, which remain in Thomson and Laird respectively.

[b] Classrooms and Faculty offices only. [c] Dance Studio only.

planning criteria that underlie the programs of space requirements for the various departments, while Chapters 5 through 8 develop the space requirements for academic, administrative, supporting academic, and staff and student service units. Chapter 9 discusses recommended building occupancy patterns and recommended additional construction at the three target enrollment levels. Chapter 10 discusses the master plan of site development which is included in this report, and Chapter 11 presents budget estimates for achieving the development program.

Appendix A lists the stipulated maximum section sizes which were used in developing space programs for the academic departments, and Appendix B presents summaries of space in existing buildings on the campus.

Throughout the report the Consultants have attempted to develop recommendations that will provide adequately for projected activities at Wilson and, at the same time, insure that maximum value will be obtained from the considerable investment already committed to existing facilities and from the additional funds required for future construction.

CHAPTER 2

INSTRUCTIONAL ACTIVITY LEVELS

In order to develop a) programs of space requirements, b) programs for the reuse of space in existing structures, and c) programs for such additional construction as may be required by the College, it is necessary to construct a model of College operations at the target enrollment levels. Procedurally, development of a model consists of the following:

identifying the enrollment targets of the College;

delineating the workloads implied by the proposed enrollment levels;

determining the space requirements associated with the projected operating levels; and

elaborating programs for the use of existing facilities and the construction of new facilities.

In this chapter, the data and procedures underlying the required estimates of enrollment composition and implied instructional workloads are presented. There are five elements involved in estimating the instructional workload. First, the planning figures for total enrollment and the class-year composition of enrollment must be established. Second, measures must be developed of the rates at which students in various enrollment groups register for courses at the several identifiable levels of course offerings. Third, estimates must be prepared of the number of student registrations that can be expected by each department at these levels of course offerings at the planned enrollment levels. Fourth, planning parameters must be established concerning the number of hours of maximum meeting group sizes for each type of meeting and each course offered by the College. Fifth, the instructional load estimated can be completed by conversion of the student load (course registration) estimates into projections of the number of contact or clock hours of each type of meeting that can be expected at the target enrollment level in each course, for each department, and for the College as a whole. The following sections of this chapter elaborate upon the six elements in greater detail.

A. Enrollment

In developing the model, the point of departure was the College enrollment targets. As discussed in Chapter 1, it was agreed between officials of the College and the Consultants to predicate three enrollment levels for planning purposes. The three levels are 800 students, 1,000 students and 1,200 students.

A key factor influencing the character and departmental distribution of instructional workload is the class-year distribution of the undergraduate student body; that is, the relative distribution of students among the freshman, sophomore, junior, and senior classes. Other things being equal, a greater concentration of student enrollment in the lower division will produce a relatively heavier workload in lower division courses and higher figures for average registrations per course than would occur if the undergraduate student body were weighted more heavily in the direction of upper division. This may be demonstrated empirically and is characteristic of instructional patterns at many institutions.

In view of the importance of the class-year composition of the undergraduate student body for estimating instructional workload patterns, it was necessary to construct a typical class-year enrollment structure for each target enrollment level. To this end, the Consultants undertook an analysis of progression patter through the four-year undergraduate program at Wilson College over the past 15 years. That is, a study was made of the proportion of freshmen, sophomores, juniors and seniors, respectively, in subsequent years. The historical data which form the basis for this analysis is presented in Table 2-1.

A weighted average then was calculated. The latter indicated that the interval under study was characterized by a class-year progression pattern in which an average figure of 86.88 percent of all freshman students proceeded to the sophomore level, 82.46 percent of sophomores progressed to the junior level, and 95.19 percent of juniors advanced to senior status. It should be noted that these figures include transfers from other institutions, which were included on the assumption that this pattern is likely to continue in future years. Table 2-2 illustrates the results of this analysis. It was then necessa to calculate, on the basis of historical data, the probable number of special (or day) students who can be anticipated at the target enrollment levels, so that the probable number of regular students within the target figures can be calculated. Table 2-3 illustrates this analysis.

Applying the standardized distribution to the number of regular students anticipated at the three target enrollment levels indicates a class-year distribution as indicated in Table 2-4.

B. Activity Level: Course Registrations

These enrollment figures have implications for the number and distribution of student registrations among the offerings of the various instructional

2-1. Wilson College. Distribution of Regular Undergraduate Enrollment by Class Year, First Semester, 1951 to 1965

	Class Year				
Year	Freshman	Sophomore	Junior	Senior	Total
			Number		
1951-52	90	70	79	97	336
1952-53	89	80	66	75	310
1953-54	106	73	69	65	313
1954-55	127	87	61	70	345
1955-56	115	111	73	56	355
1956-57	140	97	91	71	399
1957-58	164	120	77	89	450
1958-59	173	145	98	78	494
1959-60	175	150	115	95	535
1960-61	179	142	129	107	557
1961-62	147	161	114	116	538
1962-63	181	129	144	108	562
1963-64	164	157	113	136	570
1964-65	211	149	121	108	589
1965-66	252	182	117	114	665
			Percent		
1951-52	26.8	20.8	23.5	28.9	100.0
1952-53	28.7	25.8	21.3	24.2	100.0
1953-54	33.9	23.3	22.0	20.8	100.0
1954-55	36.8	25.2	17.7	20.3	100.0
1955-56	32.4	31.3	20.5	15.8	100.0
1956-57	35.1	24.3	22.8	17.8	100.0
1957-58	36.4	26.7	17.1	19.8	100.0
1958-59	35.0	29.4	19.8	15.8	100.0
1959-60	32.7	28.0	21.5	17.8	100.0
1960-61	32.2	25.5	23.1	19.2	100.0
1961-62	27.3	30.0	21.1	21.6	100.0
1962-63	32.2	23.0	25.7	19.2	100.0
1963-64	28.8	27.5	19.8	23.9	100.0
1964-65	35.9	25.3	20.5	18.3	100.0
1965-66	37.9	27.3	17.6	17.1	100.0

2-2. Wilson College. Student Progression Patterns in Four-Year Undergraduate Degree Program, Fall Semester, 1951-1965

Year	Freshman	Progression Rate: Freshman to Sophomore	Sophomore	Progression Rate: Sophomore to Junior	Junior	Progression Rate: Junior to Senior	Senior
1951	90		70		79		97
		.8889		.9429		.9494	
1952	89		80		66		75
		.8202		.8625		.9848	
1953	106		73		69		65
		.8208		.8356		1.0145	
1954	127		87		61		70
		.8740		.8391		.9180	
1955	115		111		73		56
		.8435		.8198		.9726	
1956	140		97		91		71
		.8571		.7938		.9780	
1957	164		120		77		89
		.8841		.8167		1.0130	
1958	173		145		98		78
		.8671		.7931		.9694	
1959	175		150		115		95
		.8114		.8600		.9304	
1960	179		142		129		107
		.8994		.8028		.8992	
1961	147		161		114		116
		.8776		.8944		.9474	
1962	181		129		144		108
		.8674		.8760		.9444	
1963	164		157		113		136
		.9085		.7707		.9558	
1964	211		149		121		108
		.8626		.7852		.9421	
1965	252		182		117		114
Weighted average		.8688		.8246		.9519	
Standardized distribution	30.61		26.59		21.93		20.87

2-3. Wilson College. Undergraduate and Special Enrollment Mix, Fall Semester, 1951 to 1965, and at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Year or Target Enrollment Level	Enrollment			Ratio of Special to Regular Enrollment
	Regular	Special	Total	
1951	336	9	345	.0268
1952	310	7	317	.0226
1953	313	7	320	.0224
1954	345	2	347	.0058
1955	355	3	358	.0085
1956	399	1	400	.0025
1957	450	2	452	.0044
1958	494	2	496	.0040
1959	535	2	537	.0037
1960	557	7	564	.0126
1961	538	5	543	.0093
1962	562	7	569	.0125
1963	570	6	576	.0105
1964	589	4	593	.0068
1965	665	9	674	.0135
Weighted average				
800 students	792	8	800	.0094
1,000 students	991	9	1000	.0094
1,200 students	1189	11	1200	.0094

2-4. Wilson College. Distribution of Enrollment by Class Year, Regular Component, at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Class Year	Target Enrollment Level			
	Standardized Distribution	800 Students	1,000 Students	1,200 Students
Freshman	30.61	242	303	364
Sophomore	26.59	211	264	316
Junior	21.93	174	217	261
Senior	20.87	165	207	248
Total	100.00	792	991	1189

departments, as well as among individual courses within each department. The basic data used in the projections of course registrations at the target enrollment levels were summaries of the number of students registered in courses offered by the departments in the fall semester 1965-66. In order to facilitate procedure, registrations in each department were grouped by level of offering-that is, the number of registrants in courses at each class-year level.

The Consultants then hypothesized the existence of a relationship between registrations and departmental course offerings at each level and the number of students in selected categories of enrollment. Thus, the number of registrations in courses in the 100 series of each department was posited to be a function of the number of students enrolled in the freshman class; 200-level registrations were assumed to be functionally related to the combined enrollment in the freshman and sophomore classes; while 300-level registrations were posited to be a function of the combination of junior and senior class enrollment. Course 400, in each case, is open only to seniors. These statements are general, however, since many exceptions take place in the various departments. This being the case, it was necessary to construct for each department a matrix of the course offerings of the department with an indication of the class-year level of students who take a particular course in the department. Table 2-5 is an example of such a matrix for the department of English, which is used for illustrative purposes in this chapter. Indexes of growth in registrations then were calculated for the various possible groupings as illustrated in Tables 2-6 and 2-7. These indexes were designed to reflect the expansion rate in course registrations between 1965-66 and the target enrollment levels used in this study.

2-5. Wilson College. Department of English: Matrix of Course Offerings and Class-Year Levels; Fall, 1965

Course Number	1	2	3	4	1+2	1+2+3	1+2+3+4	2+3	2+3+4	3+4
	Class-Year Level									
100	x									
101					x					
201									x	
213									x	
223										x
301									x	
309									x	
315									x	
319										x
333									x	
400				x						

N.B. Matrix lists only the courses given in the Fall Semester, 1965.

2-6. Wilson College. Analyses of Enrollment and Indexes of Growth at Target Enrollment Levels of 800 Students, 1,000 Students and 1,200 Students

	Class Year Level									
	1	2	3	4	1+2	1+2+3	1+2+3+4	2+3	2+3+4	3+4
Enrollment, 1965-66	252	182	117	114	434	551	665	299	413	231
800-student enrollment	242	211	174	165	453	627	792	385	550	339
Index of growth	.960	1.159	1.487	1.447	1.044	1.138	1.191	1.288	1.332	1.468
1,000-student enrollment	303	264	217	207	567	784	991	481	688	424
Index of growth	1.202	1.451	1.855	1.816	1.306	1.423	1.490	1.609	1.666	1.835
1,200-student enrollment	364	316	261	248	680	941	1189	577	825	509
Index of growth	1.444	1.736	2.231	2.175	1.567	1.708	1.788	1.930	1.998	2.203

2-7. Wilson College. Indexes of Growth at Target Enrollment Levels of 800 Students, 1,000 Students and 1,200 Students

Class Year	800-Students	1,000-Students	1,200-Students
Total	1.191	1.490	1.788
1	.960	1.202	1.444
2	1.159	1.451	1.736
3	1.487	1.855	2.231
4	1.447	1.816	2.175
1+2	1.044	1.306	1.567
1+2+3	1.138	1.423	1.708
1+2+3+4[a]	1.191	1.490	1.788
2+3	1.288	1.609	1.930
2+3+4	1.332	1.666	1.998
3+4	1.468	1.835	2.203

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[a] Same as total.

C. Activity Level: Clock-Hour Workload

For estimating the requirements for staff and scheduled space, projections are needed of the size and characteristics of the clock-hour workload associated with the course registration load projected for each department. To make these estimates, two types of planning parameters, in addition to those already calculated, are needed: a statement of the number of hours of lecture, laboratory and other types of meetings per week in each course; a specification of the preferred sizes of the student groups to be taught as a unit in each type of meeting in each course. Both planning parameters are in the nature of educational policy decisions, and were supplied by the appropriate College officals.

The Consultants then assumed a continuation of the 1965-66 course structure, except for such modifications as were indicated by College officals during the field survey interviews. An enumeration of the courses offered in the fall of 1965, together with the number of registrants in each course, was prepared. Then the Consultants projected registrations at the target enrollment levels by applying to every such course registration figure the index of growth and registration calculated for the course level group or groups to which any particular course belongs. Thus, estimates were obtained of total registrations in each course assumed to be taught at the College at 800 students, 1,000 students, and 1,200 students. Table 2-8, again dealing with the department of English, illustrates the procedure.

To proceed to the clock-hour workload estimates, the number of meeting groups, or sections, in each course was established by dividing the projected registration total for a course by the preferred meeting group size specified as a planning

2-8. Wilson College. Department of English: Indexes of Growth and Projected Registrations at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Course Number	Course Level	Registrations: 1965-66	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
			Index of Growth	Registrations	Index of Growth	Registrations	Index of Growth	Registrations
100	1	1	.960	0	1.202	1	1.444	1
101	1+2	251	1.044	262	1.306	327	1.567	393
201	2+3+4	18	1.332	23	1.666	29	1.998	35
213	2+3+4	60	1.332	79	1.666	99	1.998	119
223	3+4	27	1.468	39	1.835	49	2.203	59
301	2+3+4	4	1.332	5	1.666	6	1.998	7
309	2+3+4	9	1.332	11	1.666	14	1.998	17
315	2+3+4	20	1.332	26	1.666	33	1.998	39
319	3+4	5	1.468	7	1.835	9	2.203	11
333	2+3+4	12	1.332	16	1.666	20	1.998	24
400	4	9	1.447	13	1.816	16	2.175	19
	Total	416		481		603		724

N.B. Table lists only the courses given in the Fall Semester, 1965.

parameter for that course. For flexibility of scheduling and in the use of staff, a 10 percent variation from the preferred meeting group size was allowed in marginal cases where two or more sections were not clearly required. With the number of meeting groups in each course projected, the clock-hour load for any course was readily established by multiplying the number of meeting groups in the course by the planning parameter figures regarding the number of hours for each type of meeting per week for that particular course. Table 2-9 illustrates this procedure at the first target level for the department of English.

Tables 2-10 through 2-12 provide summaries of total registrations, by department, at the three target enrollment levels.

The last stage in the procedure, the aggregation of clock-hours per week in order to ascertain teaching loads is discussed in the next chapter in the context of staff and classroom requirements.

2-9. Wilson College. Department of English: Clock Hours of Meeting per Week at Target Enrollment of 800 Students, by Course and Type of Meeting

Course Number	Registrations	Lecture, Classroom					Seminar, Recitation Discussion				
		A	B	C	D	E	A	B	C	D	E
100	0	20	0	3	0	0	--	--	--	--	--
101	262	20	14	3	42	19	--	--	--	--	--
201	23	10	3	3	9	8	--	--	--	--	--
213	79	NL	1	3	3	79	--	--	--	--	--
223	39	25	2	3	6	20	--	--	--	--	--
301	5	10	1	3	3	5	--	--	--	--	--
309	11	20	1	3	3	11	--	--	--	--	--
315	26	25	1	3	3	26	--	--	--	--	--
319	7	25	1	3	3	7	--	--	--	--	--
333	16	25	1	3	3	16	--	--	--	--	--
400	13	--	--	--	--	--	10	2	3	6	7
Total	481				75					6	

Recapitulation

Number of Students per Room	Clock Hours of Meeting per Week
Under 20	69
20-29	9
60-89	3
Total	81

N.B. A: Maximum size of student meeting groups: see policy assumptions.
B: Number of meeting groups per week: Column 2 ÷ Column A.
C: Clock hours of meeting per group per week: see policy assumptions.
D: Number of clock hours of meeting per week: Column B x Column C.
E: Actual size of student meeting groups: Column 2 ÷ Column B.
NL = no limit.

2-10. Wilson College. Instructional Workload Summary, at Target Enrollment of 800 Students

Department	Course Registrations	Clock Hours			
		Lecture, Classroom	Seminar	Laboratory	Total
Bible and Religion	239	10	18	--	28
Biology	174	12	4	39	55
Chemistry	96	6	--	24	30
Classics					
Greek	46	3	6	--	9
Latin	52	--	18	--	18
Economics	113	9	18	--	27
Education	95	12	4	--	16
English	481	60	18	--	78
Fine Arts	281	24	3	32	59
French	401	54	18	14	86
Geography	49	6	--	3	9
German	125	18	12	6	36
History	531	66	6	--	72
Mathematics	219	33	--	--	33
Music	112	21	--	51	72
Philosophy	113	15	8	--	23
Physics	25	3	6	6	15
Political Science	132	18	12	--	30
Psychology	312	12	17	25	54
Sociology and Anthropology	296	33	6	--	39
Spanish	118	--	30	6	36
Total	4010	415	204	206	825

2-11. Wilson College. Instructional Workload Summary, at Target Enrollment of 1,000 Students

Department	Course Registrations	Clock Hours: Lecture, Classroom	Clock Hours: Seminar	Clock Hours: Laboratory	Clock Hours: Total
Bible and Religion	301	10	22	--	32
Biology	228	12	5	48	65
Chemistry	119	6	--	27	33
Classics					
Greek	58	3	6	--	9
Latin	65	--	21	--	21
Economics	143	9	18	--	27
Education	120	12	4	--	16
English	603	72	18	--	90
Fine Arts	351	27	4	42	73
French	501	66	21	17	104
Geography	61	9	--	6	15
German	158	18	15	6	39
History	665	84	6	--	90
Mathematics	275	39	--	--	39
Music	141	21	--	63	84
Philosophy	142	18	8	--	26
Physics	27	3	6	9	18
Political Science	165	18	12	--	30
Psychology	392	12	17	31	60
Sociology and Anthropology	372	42	10	--	52
Spanish	150	--	30	6	36
Total	5037	481	223	255	959

2-12. Wilson College. Instructional Workload Summary, at Target Enrollment of 1,200 Students

Department	Course Registrations	Clock Hours: Lecture, Classroom	Seminar	Laboratory	Total
Bible and Religion	361	10	34	--	44
Biology	260	12	6	58	76
Chemistry	144	6	--	30	36
Classics					
Greek	69	6	9	--	15
Latin	80	--	21	--	21
Economics	170	12	18	--	30
Education	145	12	5	--	17
English	724	87	21	--	108
Fine Arts	421	30	4	42	76
French	603	78	24	21	123
Geography	73	9	--	6	15
German	189	24	15	8	47
History	799	96	6	--	102
Mathematics	329	48	--	--	48
Music	169	27	--	76	103
Philosophy	170	21	8	--	29
Physics	39	3	6	9	18
Political Science	196	24	12	--	36
Psychology	471	15	23	37	75
Sociology and Anthropology	445	48	10	--	58
Spanish	179	--	33	7	40
Total	6036	568	255	294	1117

CHAPTER 3

TEACHING STAFF AND CLASSROOM REQUIREMENTS

The projections of registration by course, as described in the preceding chapter, permit the development of two estimates central to this study. The first of these is an estimate of required teaching staff, whose number is to a considerable extent a function of the number of the scheduled hours of class meeting. The second is an estimate of the amount and nature of the classroom and seminar space needed for the class meetings.

A. Staff Requirements

In many liberal arts colleges, there is a certain flexibility in the concept of standarized teaching load. The number of clock, or scheduled, classroom hours per week per instructor is subject to variation among various institutions and among the departments of a particular college. Nevertheless, it is useful for planning purposes to fix some weekly load target, consistent with past practice and present trends. Such a standard may be valid as an average, although there may well be variations based on individual circumstances. In consultation with College officals, the Consultants assumed, for planning purposes, a 12 hour per week teaching load for most departments, with some variations approved for certain departments because of special circumstances (large numbers of papers to read and grade, laboratory supervision, etc.).

The study is concerned with this question because it relates to quantifying the need for faculty office space. At the same time it is recognized that the contact- or clock-hour method of projecting faculty for the target enrollments is too mechanical to provide more than an approximation, which must then be reviewed and modified to conform with the educational policy of the College as it evolves over the years. To arrive at this approximation, a tabulation was made, by department, of the hours of meeting of each section of each course. This includes consideration of College policy regarding the size of each section in courses that are to be split into two or more groups of students as explained in Chapter 2. Table 3-1 illustrates the procedure and summarizes the number of faculty which will be required to support the clock-hour workloads at the three target enrollment levels. Table 3-2 summarizes the number of faculty in comparision with the faculty existing at the College in 1966.

It should be noted that this procedure is based, as seen previously, on a weighted average of experience during the past fifteen years. As a result, when applied to an enrollment which is almost the same as that which presently exists, it will not necessarily square with actual experience. However, over the years the Consultants have found that the procedure produces very good results when applied to expanded enrollment levels.

It should also be noted that this kind of procedure does not reflect changes in policy, emphasis, or the effect of personalities on shifts within the College. For example, if as a matter of policy it is determined in the future to emphasize or "build-up" a given department, statistical projections will not reflect this decision. In like manner, if a quiescent department is staffed with new and stimulating personnel who attract students to their courses, the projections will not predict this unforeseen development. For these reasons, the Consultants suggest that the figures developed here be up-dated periodically by the College on the basis of actual experience gained over the years.

3-1. Wilson College. Faculty Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Department	Clock Hour Load per Faculty Member	800-Students		1,000-Students		1,200-Students	
		Clock Hour Load	Faculty Require- ments	Clock Hour Load	Faculty Require- ments	Clock Hour Load	Raculty Require- ments
Bible and Religion	9.0	28	3.00	32	3.50	44	5.00
Biology	12.0	55	4.50	65	5.50	76	6.25
Chemistry	13.5	39	3.00	42	3.00	45	3.25
Classics							
Greek	12.0	9	.75	9	.75	15	1.25
Latin	12.0	18	1.50	21	1.75	21	1.75
Economics	12.0	27	2.25	27	2.25	30	2.50
Education[a]	12.0	16	1.25	16	1.25	17	1.50
English	9.0	81	9.00	93	10.25	108	12.00
Fine Arts	12.0	59	5.00	73	6.00	80	6.75
French	12.0	86	7.25	104	8.75	123	10.25
Geography	12.0	9	1.00	15	1.25	15	1.25
German	12.0	36	3.00	39	3.25	47	4.00
History	9.0	72	8.00	90	10.00	102	11.25
Mathematics	12.0	33	2.75	39	3.25	48	4.00
Music	12.0[b]	72	4.50	84	5.00	103	6.00
Philosophy	12.0	25	2.00	28	2.25	31	2.50
Physical Education[c]	20.0	72	3.50	90	4.50	108	5.50
Physics	13.0	15	1.25	18	1.50	18	1.50
Political Science	12.0	30	2.50	30	2.50	36	3.00
Psychology	12.0	54	4.50	60	5.00	75	6.25
Sociology and Anthropology	12.0	41	3.50	54	4.50	60	5.00
Spanish	12.0	36	3.00	36	3.00	40	3.25
Total		913	77.00	1065	89.00	1242	104.00

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[a] Does not include supervision of student teaching.

[b] 12 hours History and Theory; 20 hours voice and instrumental.

[c] Assumes two years required; 25% upper division students.

3-2. Wilson College. Existing Faculty and FTE Faculty Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

		Faculty Requirements		
Department	Faculty 1966	800-Student Enrollment	1,000-Student Enrollment	1,200-Student Enrollment
Bible and Religion	2.50	3.00	3.50	5.00
Biology	4.50	4.50	5.50	6.25
Chemistry	3.00	3.00	3.00	3.25
Classics				
Greek	1.00	.75	.75	1.25
Latin	1.00	1.50	1.75	1.75
Economics	1.50	2.25	2.25	2.50
Education[a]	2.00	1.25	1.25	1.50
English	7.50	9.00	10.25	12.00
Fine Arts	3.50	5.00	6.00	6.75
French	6.00	7.25	8.75	10.25
Geography	1.00	1.00	1.25	1.25
German	3.00	3.00	3.25	4.00
History	5.00	8.00	10.00	11.25
Mathematics	2.50	2.75	3.25	4.00
Music	4.00	4.50	5.00	6.00
Philosophy	2.00	2.00	2.25	2.50
Physical Education[b]	4.00	3.50	4.50	5.50
Physics	2.00	1.25	1.50	1.50
Political Science	1.50	2.50	2.50	3.00
Psychology	2.75	4.50	5.00	6.25
Sociology and Anthropology	3.00	3.50	4.50	5.00
Spanish	3.00	3.00	3.00	3.25
Total	66.25	77.00	89.00	104.00

---

[a] Does not include supervision of student teaching.

[b] Assumes two years required; 25% upper division students.

B. Classrooms and Seminar Rooms

The data in the analysis of classroom and seminar room requirements are again the registration forecasts of the previous chapter. The forecasts of registrations per course were used to determine the number of sections in each case, based on the maximum size of section stipulated by the faculty and administration.[a] The number of hours of meeting per section was multiplied by the number of sections to obtain the total weekly hours of meeting per course. This procedure was illustrated in Table 2-9 for the Department of English.

These figures were then tabulated by size grouping. A summary of the number of meeting hours for all departments, at the three target enrollment levels, is shown in Tables 3-3 through 3-5. Class meetings of fewer than 20 students are presumed to be amenable to seminar arrangement. It is assumed that classrooms for lecture courses of a given range in the number of registrants are interchangeable. Therefore, classrooms of a given size will serve any department. The number of classrooms in any size category was determined by dividing the number of hours of meeting for all courses in the size group by the average utilization of the classrooms in hours per week.

C. Space Utilization

This last point, the intensity of utilization of classrooms, has been the subject of much investigation in recent years. In many studies, it is stated that colleges are inefficient when the average utilization in hours per week

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[a] A list of maximum section sizes for all departments is included in Appendix A.

3-3. Wilson College. Number of Clock Hours of Teaching per Week by Class Size and Department at Target Enrollment of 800 Students

Department	Class Size Distribution										
	Under 20	20-29	30-39	40-49	50-59	60-89	90-119	120-179	180-239	240+	Total
Bible and Religion	9	18	--	--	--	--	--	--	1	--	28
Biology	10	4	--	--	--	--	2	--	--	--	16
Chemistry	9	3	--	--	3	--	--	--	--	--	15
Classics											
Greek	6	3	--	--	--	--	--	--	--	--	9
Latin	18	--	--	--	--	--	--	--	--	--	18
Economics	18	9	--	--	--	--	--	--	--	--	27
Education	10	6	--	--	--	--	--	--	--	--	16
English	69	9	--	--	--	3	--	--	--	--	81
Fine Arts	23	1	--	--	--	--	--	3	--	--	27
French	51	35	--	--	--	--	--	--	--	--	86
Geography	3	--	3	--	--	--	--	--	--	--	6
German	36	--	--	--	--	--	--	--	--	--	36
History	21	39	12	--	--	--	--	--	--	--	72
Mathematics	12	21	--	--	--	--	--	--	--	--	33
Music	12	3	6	--	--	--	--	--	--	--	21
Philosophy	25	--	--	--	--	--	--	--	--	--	25
Physics	9	--	--	--	--	--	--	--	--	--	9
Political Science	30	--	--	--	--	--	--	--	--	--	30
Psychology	26	--	--	--	--	--	--	--	3	--	29
Sociology and Anthropology	18	18	3	--	2	--	--	--	--	--	41
Spanish	30	--	--	--	--	--	--	--	--	--	30
Total	445	169	24	--	5	3	2	3	4	--	655

3-4. Wilson College. Number of Clock Hours of Teaching per Week by Class Size and Department at Target Enrollment of 1,000 Students

	Class Size Distribution										
Department	Under 20	20-29	30-39	40-49	50-59	60-89	90-119	120-179	180-239	240+	Total
Bible and Religion	9	22	--	--	--	--	--	--	--	1	32
Biology	5	10	--	--	--	--	--	2	--	--	17
Chemistry	9	3	--	--	--	3	--	--	--	--	15
Classics											
Greek	6	--	3	--	--	--	--	--	--	--	9
Latin	21	--	--	--	--	--	--	--	--	--	21
Economics	18	9	--	--	--	--	--	--	--	--	27
Education	10	--	6	--	--	--	--	--	--	--	16
English	81	9	--	--	--	--	3	--	--	--	93
Fine Arts	28	--	--	--	--	--	--	3	--	--	31
French	44	60	--	--	--	--	--	--	--	--	104
Geography	3	6	--	--	--	--	--	--	--	--	9
German	27	12	--	--	--	--	--	--	--	--	39
History	18	66	6	--	--	--	--	--	--	--	90
Mathematics	12	27	--	--	--	--	--	--	--	--	39
Music	12	3	6	--	--	--	--	--	--	--	21
Philosophy	28	--	--	--	--	--	--	--	--	--	28
Physics	6	3	--	--	--	--	--	--	--	--	9
Political Science	15	15	--	--	--	--	--	--	--	--	30
Psychology	14	12	--	--	--	--	--	--	--	3	29
Sociology and Anthropology	28	24	--	--	--	2	--	--	--	--	54
Spanish	30	--	--	--	--	--	--	--	--	--	30
Total	424	281	21	--	--	5	3	5	--	4	743

3-5. Wilson College. Number of Clock Hours of Teaching per Week by Class Size and Department at Target Enrollment of 1,200 Students

Department	Class Size Distribution										
	Under 20	20-29	30-39	40-49	50-59	60-89	90-119	120-179	180-239	240+	Total
Bible and Religion	43	--	--	--	--	--	--	--	--	1	44
Biology	5	11	--	--	--	--	--	2	--	--	18
Chemistry	9	--	3	--	--	3	--	--	--	--	15
Classics											
Greek	9	6	--	--	--	--	--	--	--	--	15
Latin	21	--	--	--	--	--	--	--	--	--	21
Economics	18	12	--	--	--	--	--	--	--	--	30
Education	11	--	--	6	--	--	--	--	--	--	17
English	27	78	--	--	--	--	3	--	--	--	108
Fine Arts	31	--	--	--	--	--	--	--	3	--	34
French	75	48	--	--	--	--	--	--	--	--	123
Geography	3	6	--	--	--	--	--	--	--	--	9
German	47	--	--	--	--	--	--	--	--	--	47
History	18	66	18	--	--	--	--	--	--	--	102
Mathematics	21	27	--	--	--	--	--	--	--	--	48
Music	18	--	9	--	--	--	--	--	--	--	27
Philosophy	28	3	--	--	--	--	--	--	--	--	31
Physics	6	3	--	--	--	--	--	--	--	--	9
Political Science	21	15	--	--	--	--	--	--	--	--	36
Psychology	29	6	--	--	--	--	--	--	--	3	38
Sociology and Anthropology	15	43	--	--	--	2	--	--	--	--	60
Spanish	30	3	--	--	--	--	--	--	--	--	33
Total	485	327	30	6	--	5	3	2	3	4	865

is low, resulting in wasted space. However, it must be recognized that the rate of utilization will vary with the size and type of instituiton and with the total pattern of activity, curricular and extracurricular.

In order to gain perspective on possible utilization targets at Wilson, an examination was made of classroom-use in the fall semester of the 1965-66 academic year. On the average, classrooms at Wilson were utilized twenty-three hours per week. This compares favorably with other small liberal arts colleges and indicates good scheduling procedures. The number of classrooms required, therefore, was determined on this level of intensity of utilization. Table 3-6 indicates the classroom requirements by size group for the three enrollment targets. Table 3-7 indicates the existing utilization patterns on the campus.

In teaching laboratories, the factor of room utilization is much more elusive. The character of the laboratory is very frequently of such a nature that only one or a very few courses may be accommodated in a particular room. For example, a laboratory for physical chemistry is probably of no use for any other course. It is possible to obtain reasonably efficient standards of utilization in teaching laboratories in elementary science courses where the multiplicity of sections in a single offering lends itself to higher rates of utilization. In the upper-class science laboratories the chief factors are the numbers of sections per course and the extent to which more than one course can share a single laboratory.

These criteria are, in reality, dependent on the nature of instruction

3-6. Wilson College. General Classroom Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Classroom Capacity	Existing Classrooms, Fall 1965[a]	Classrooms Required		
		Clock Hours	Unadjusted	Adjusted
			800 STUDENTS	
360 Stations	--	--	--	--
240 Stations	1	4	.17	1
180 Stations	1	3	.13	--
120 Stations	--	2	.08	--
80 Stations	1	3	.13	--
60 Stations	4	5	.21	--
50 Stations	10	--	--	--
40 Stations	7	24	1.04	1
30 Stations	1	169	7.34	7
20 Stations	3	445	9.34	19
Total	28	655	28.47	28
			1,000 STUDENTS	
360 Stations	--	4	.17	1
240 Stations	1	--	--	--
180 Stations	1	5	.21	--
120 Stations	--	3	.13	--
80 Stations	1	--	--	--
60 Stations	4	5	.21	--
50 Stations	10	--	--	--
40 Stations	7	21	.91	1
30 Stations	1	281	12.21	12
20 Stations	3	424	18.43	18
Total	28	743	32.30	32
			1,200 STUDENTS	
360 Stations	--	4	.17	1
240 Stations	1	3	.13	--
180 Stations	1	2	.08	--
120 Stations	--	3	.13	--
80 Stations	1	5	.21	--
60 Stations	4	--	--	--
50 Stations	10	6	.26	--
40 Stations	7	30	1.30	1
30 Stations	1	327	14.21	14
20 Stations	3	485	21.08	21
Total	28	865	37.57	37

---

[a] Includes new science building.

3-7. **Wilson College.** Room Utilization Rate and Student Station Utilization Rate, Fall 1965

Building and Room Number	Number of Hours of Scheduled Room Use	Number of Hours of Available Room Use	Room Utilization Rate	Number of Student Stations Installed	Number of Scheduled Student Station Hours	Number of Available Student Station Hours	Student Utilization Rate
Alumnae Hall classroom	30	41	.73	80	626	3280	.19
Biology Building							
Biology lecture room	18	41	.43	60	535	2665	.20
Lortz Hall							
Chemistry lecture room	12	41	.29	60	249	2583	.09
Physics lecture room	9	41	.21	28	69	1148	.06
Thomson Hall							
36	23	41	.56	60	386	2460	.15
Warfield Hall							
101	16	41	.39	142	1352	5822	.23
104	12	41	.29	16	146	656	.22
109	26	41	.63	50	577	2050	.28
110	27	41	.65	40	644	1640	.39
201	32	41	.78	60	817	2460	.33
202	31	41	.75	50	725	2214	.32
211	30	41	.73	50	678	2214	.30
212	23	41	.56	50	509	2214	.22
301	29	41	.70	50	633	2050	.30
302	29	41	.70	50	594	2050	.28
311	26	41	.63	45	371	1845	.20
314	26	41	.63	50	446	2050	.21
401[a]	21	41	.51	32	486	1312	.37
409	22	41	.53	50	268	2009	.13
412	20	41	.48	32	323	1312	.24
Average	23	41	.55	53.70	521.70	2201.70	.23

---

[a] Room used both as a laboratory and a lecture hall.

in the various departments and are not subject to generalized criteria such as may be applied to classrooms. The laboratory reuqirements for each department are discussed in Chapter 5.

CHAPTER 4

PLANNING CRITERIA

In order to program departmental space requirements systematically, some consistent criteria must be established which will represent the typical units of area to be assigned to the various principal types of space. The types of space which occur with sufficient frequency thorughout the College to warrant such standarization are faculty offices, classroom space, library space, and, to some extent, laboratory areas for teaching and research.

These unit area standards can be combined with the number of units needed of a particular item to produce the area requirements for a particular space category. For example, the amount of faculty office space required is a product of the number of the instructors to be assigned to office space and the amount of space assigned to each. In classroom and teaching laboratories, the amount of area is a product of the number of teaching stations and the average area per station.

In the following sections of this chapter the criteria for the various types of space are discussed separately.

A. Office Space

Office space is required for faculty and other professional staff, supporting sub-professional staff and clerical personnel. It is assumed that all full-time faculty members and senior administrative officers should have private offices. Some categories of junior staff may be accommodated in multiple occupancy office space. Clerical personnel, for the most part, may be located at desks in open office areas.

Table 4-1 shows recommended office work station area allocations and types of space by personnel category. It should be noted that, where other than private office space is indicated, the unit area allocation per station includes a factor for the general circulation required in an open office area.

In addition to space which may be allocated directly to personnel, a number of office areas are best defined in reference to the equipment which they will house. For example, the area required for filing cabinets may be listed, as there is no consistent relationship between the number of files and the number of clerical personnel in a department. The same is true of supply cabinets, worktables and other characteristic items of office furniture. Unit standards for the most common of these items, also including a circulation factor, are listed in Table 4-2.

B. Classrooms and Seminar Rooms

Classrooms, exclusive of laboratories and seminar rooms, can follow predetermined unit standards, but the area per station decreases as the number of seats per room increases. This is because the proportion of space devoted to aisles and the instructor decreases in larger rooms. The typical station is assumed to be a tablet-armchair. Planning criteria used in this report for classroom space are illustrated by the diagram shown in Plate 1. The unit standard adapted is adequate to: a) accommodate the typical tablet-armchair student station; b) provide sufficient circulation space; c) provide an area for the instructor's desk and access to blackboards and miscellaneous teaching materials.

4-1. Wilson College. Office Space Allocation by Personnel Category

Category	Unit Area
Private office space	
Principal officer[a]	240
Department head, administration	180
Professional, administration	120
Faculty	120
Nonprivate office space	
Research assistant	60
Technician	50
Secretary	75

N.B. All area figures are expressed in square feet.

[a] Excluding president.

4-2. Wilson College. Office Space Allocation for Furniture and Equipment

Category	Unit Area
File cabinet	10[a]
Supply cabinet	15
Worktable	60
Coat rack	20

N.B. All area figures are expressed in square feet.

[a] Average area, including letter and legal sizes.

Plate 1 also illustrates a typical seminar room, which, for purposes of this study, is defined as a room for instructional groups of up to twenty students where all students and the instructor sit around a large table. However, some instructors will prefer to use typical classroom seating for groups between ten and twenty in number. It should be noted that considerably more space per student station is required by seminar-type seating.

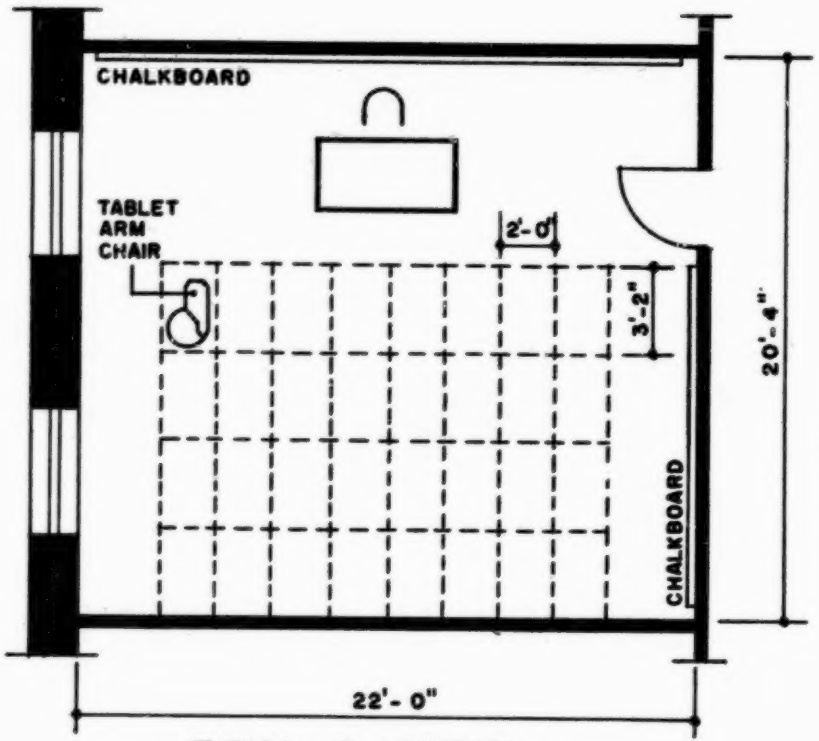
C. Teaching Laboratories

Various types of teaching laboratory space are required at the College to serve the science departments. In addition, the language departments require a language laboratory.

In each department the space requirement per student station will vary with the nature of the work to be performed in the laboratory. This, in turn, is a function of the field of study and the course level within the department. In each laboratory the number of square feet per student station may be determined by a layout showing suitable equipment, aisles, demonstration space and so forth. The bulk of the preparation and storage areas associated with teaching laboratories is not included in the planning criteria developed in this chapter. Instead, such space is programmed separately for each department. An illustrative layout of a typical teaching laboratory is indicated in Plate 2. This method of determining the area per station was applied to other departments' courses in similar fashion, although furniture and other features were subject to considerable variation.

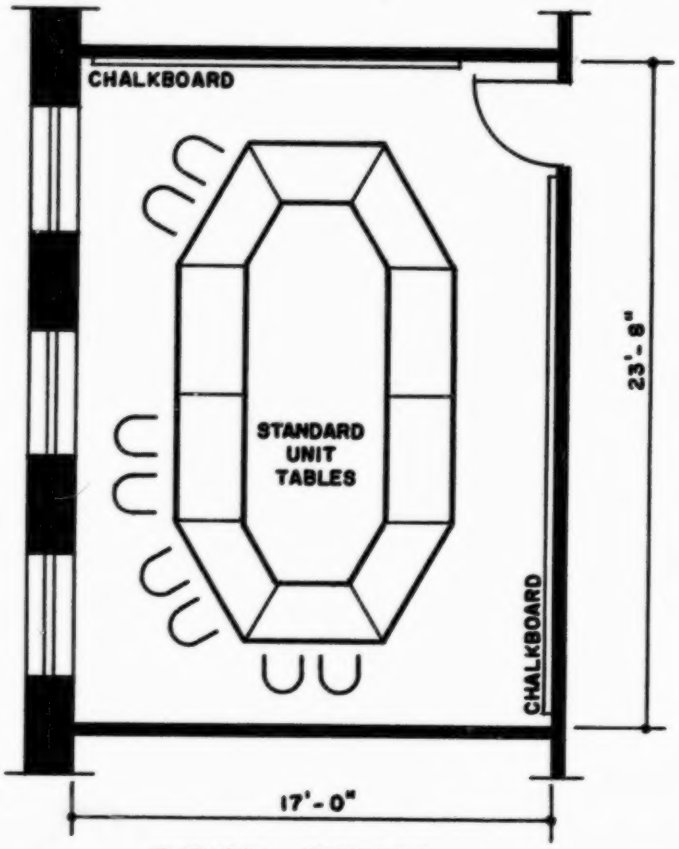
PLATE I

CLASSROOM AND SEMINAR PLANNING STANDARDS


CHALKBOARD
TABLET ARM CHAIR
2'-0"
3'-2"
20'-4"
CHALKBOARD
22'-0"

TYPICAL CLASSROOM

32 SEATS; AREA=450 SQ.FT, 450/32 = 14 SQ.FT. PER STATION


CHALKBOARD
STANDARD UNIT TABLES
23'-8"
CHALKBOARD
17'-0"

TYPICAL SEMINAR

20 SEATS; AREA= 400 SQ.FT; 400/20= 20 SQ. FT. PER PERSON

0 1 2 3 4 5
10
20 FT.

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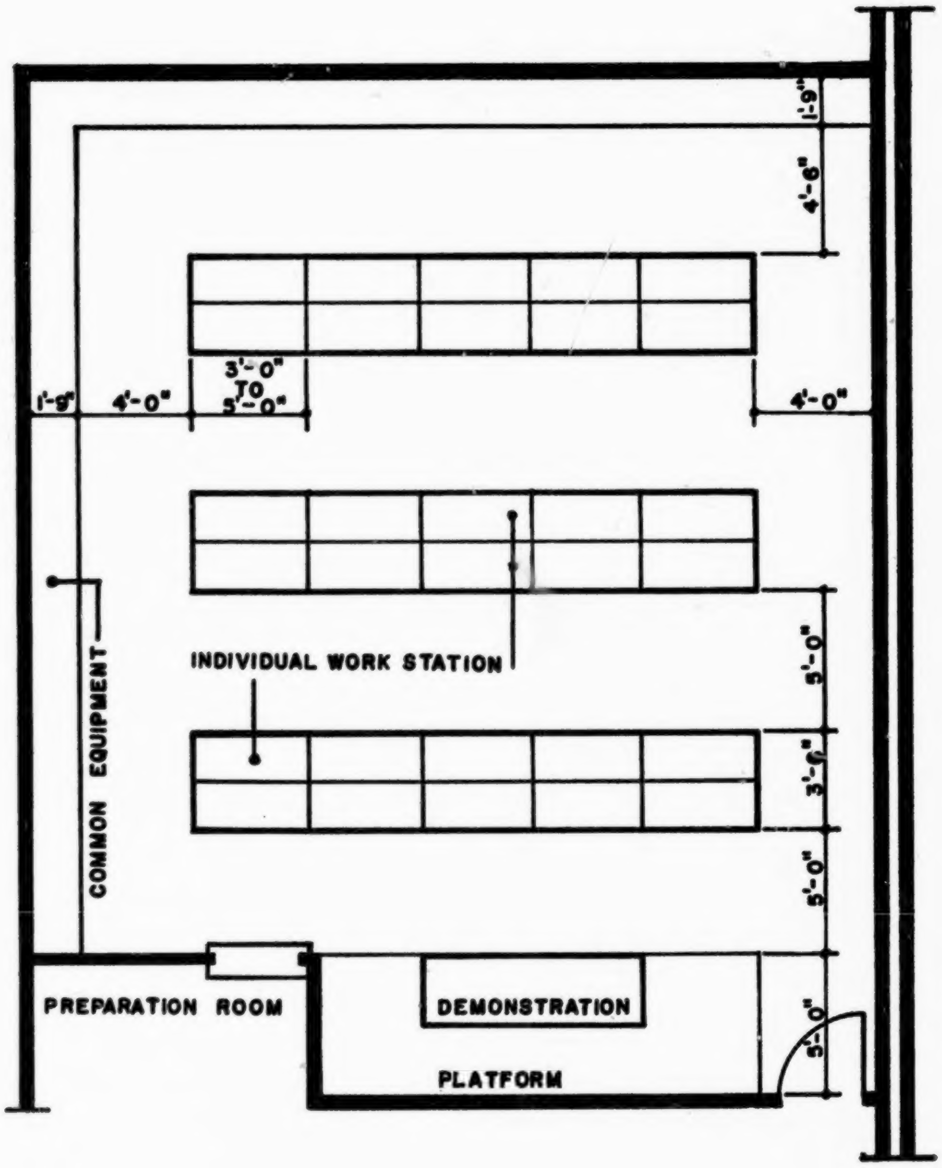
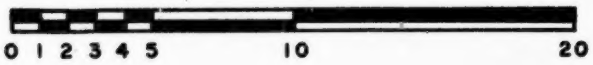
PLATE 2

PLANNING STANDARDS AND UNIT AREA ALLOCATIONS
TEACHING LABORATORIES


1'-9"
4'-6"
1'-9"
4'-0"
3'-0" TO 5'-0"
4'-0"
INDIVIDUAL WORK STATION
COMMON EQUIPMENT
5'-0"
3'-6"
5'-0"
PREPARATION ROOM
DEMONSTRATION
5'-0"
PLATFORM

AVERAGE AREA PER STUDENT WORK STATION 30-45 SQ. FT.
(VARIES WITH BENCH SPACE PER STUDENT)


0 1 2 3 4 5
10
20

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D. Research Space

Research space at Wilson is expected to be primarily the bench space and apparatus used by a single individual or small group working under one principal investigator. The proposed unit of research space is 110 square feet. This unit allocation will satisfy the individual allotment for research workers in all three science departments.

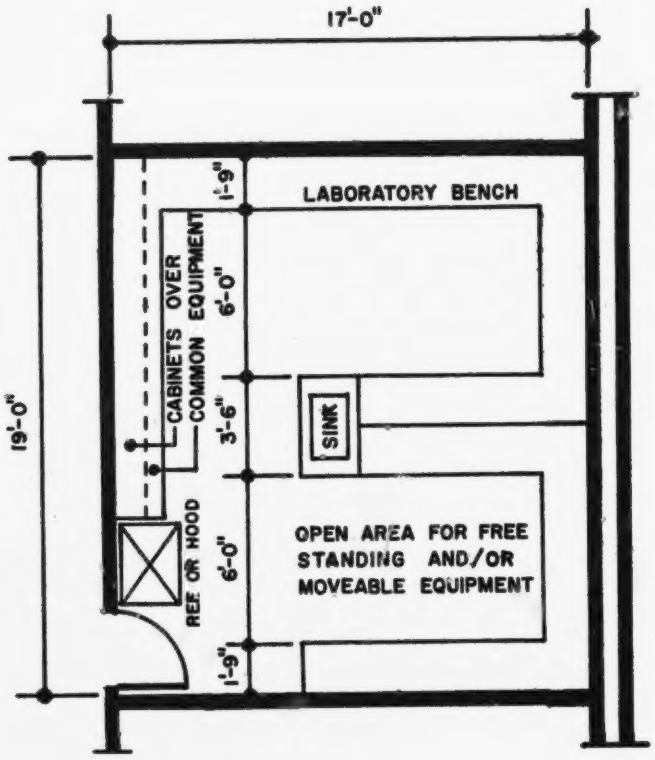
It is recommended that this allocation apply to non-faculty research personnel as well as to faculty. Thus, a research laboratory directed by a professor and staffed by a research assistant will be 220 square feet in area. If the room contains desk space for the assistant, it will be 280 square feet, including one unit of office space of 60 square feet. The faculty member's office is excluded from this calculation and requires an additional 120 square feet. A schematic drawing of a typical research laboratory is shown in Plate 3.

E. Library Space

Unit standards also may be adapted for library stack areas and reading rooms. Excluding volumes located on reference shelves and open stacks in reading room areas, the stack space must be adequate to accommodate the major portion of the College library collection. The standard per volume per square foot of stack space varies with the type of book being stored. The stack space required for storage of bound periodicals, for example, tends to be higher than the requirements for other types of volumes. A characteristic range is 12 to 15 volumes per square foot, assuming the existence of proper ventilation and humidity controls. For the purposes of this report a planning criteria of 12.5 books per square foot (.08 square feet per book) has been used.

PLATE 3

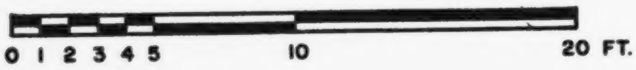
PLANNING STANDARDS AND UNIT AREA ALLOCATIONS: RESEARCH LABORATORIES


17'-0"
19'-0"
LABORATORY BENCH
CABINETS OVER
COMMON EQUIPMENT
1'-9"
6'-0"
3'-6"
6'-0"
1'-9"
SINK
REF OR HOOD
OPEN AREA FOR FREE STANDING AND/OR MOVEABLE EQUIPMENT

THIS LABORATORY IS BASED UPON A PROPOSED PLANNING STANDARD OF 110 SQ. FT. / PERSON (NET AREA). DRAWING SHOWS LABORATORY OF 330 SQ. FT. SUITABLE FOR THREE RESEARCHERS

NOTES:

COMMON EQUIPMENT = 14 LIN. FT.
LABORATORY BENCH = 48 LIN. FT. (16 LIN. FT. / RESEARCHER)


0 1 2 3 4 5
10
20 FT.

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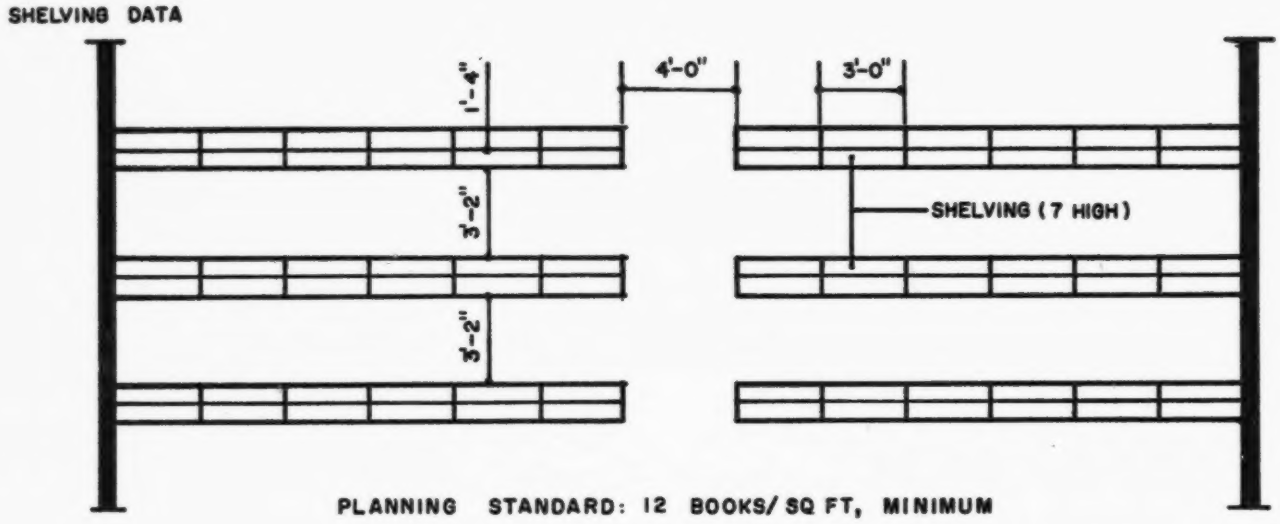
The aggregate reading room area needed for the library varies with the number of persons to be accommodated and the unit space requirement per reader. The standard allocation for reading room space is approximately 18 square feet per station at tables. This can be readily implemented if appropriate tables and chairs are used in an efficient layout. Standards for carrells, leisure reading stations, micro-reading stations, and typing stations also are used in the space program. Typical stack and reading room layouts are shown on Plate 4.

The number of persons who must be accommodated at one time will vary, of course, with time of day and period of the year. In general, it may be said that the considerable variation in demand for reading room space makes it uneconomical to attempt to provide facilities adequate to meet peak demands. The Consultants believe, however, that in the case of Wilson seating approximately 40 percent of the student body as suggested by the appropriate officials is a reasonable goal. The space programs for the library listed in Chapter 5 are based on this percentage. However, this figure is somewhat high compared with actual usage at many comparable institutions. Therefore, if financing problems require reducing the size of additional library construction, it is believed that the figure can be reduced to 30 or 25 percent without impairing the College programs.

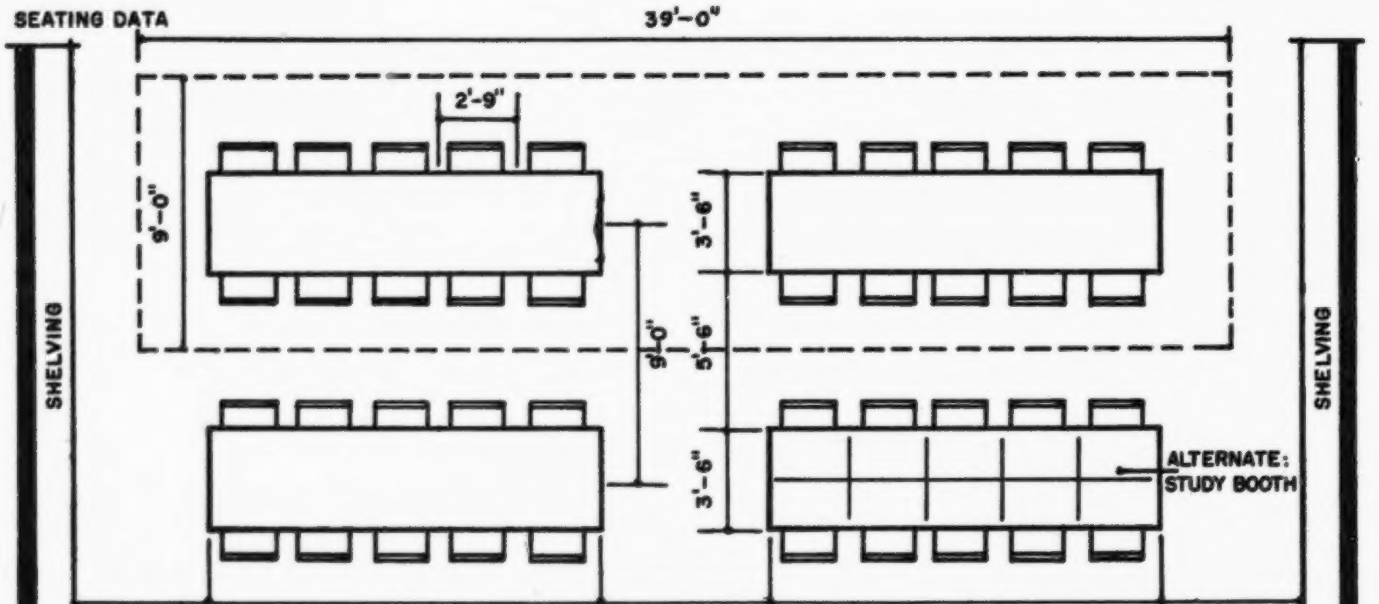
PLATE 4

PLANNING STANDARDS AND UNIT AREA ALLOCATIONS

LIBRARY


SHELVING DATA
1'-4"
4'-0"
3'-0"
3'-2"
3'-2"
SHELVING (7 HIGH)

PLANNING STANDARD: 12 BOOKS/ SQ FT, MINIMUM


SEATING DATA
39'-0"
2'-9"
9'-0"
3'-6"
5'-6"
3'-6"
9'-0"
SHELVING
SHELVING
ALTERNATE: STUDY BOOTH
5'-0"
14'-0"
6'-0"
14'-0"
5'-0"

AREA PER READING STATION = 17.6 SQ FT
USE: 18 SQ FT / READING STATION

0 1 2 3 4 5
10
20 FT.

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CHAPTER 5

SPACE REQUIREMENTS FOR ACADEMIC DEPARTMENTS

This chapter describes the space requirements for the academic departments. The square foot figures are given as net space and these area figures are guides to the number of net square feet required for each type of space.[a] The area figures are for planning purposes and are designed to give an estimate of the magnitude of building requirements and to serve as a guide to the architect. When a building is actually designed, however, it may be necessary for the architect to vary somewhat from the program figures because of site and design considerations, the module selected, and other factors.

The fact that an item in the programs in this chapter is listed separately does not necessarily mean that it is a separate space. For example, a reception area may be combined with the space listed for a secretary, a supply area and so forth, depending on building design and other considerations. Similarly, the fact that numbers of offices or similar areas are listed does not necessarily imply that that number of full-time personnel will be required. For example, if space for clerical help is included in the program, this may be used by a temporary or part-time person.

In the academic departments, departmental space comprises offices, laboratories, storage areas, and a variety of special purpose rooms reflecting the needs of a particular course or program. This chapter includes for each department a description of the features of the physical plant requirements and a table listing the areas programmed. Departments are listed in alphabetical order, with the science departments treated separately, and the table for each department shows space requirements for target enrollments of 800, 1,000 and 1,200 students.

---

[a] Net and gross areas are defined in Chapter 9.

Preceding the departmental listings are the requirements for classroom-type space. The chapter ends with a summary of academic space estimated for the three target enrollment levels.

A. Classroom-Type Space

The area required for all classrooms and seminars, and an auditorium, is shown in Table 5-1. Areas for the storage of teaching materials and other specialized space are listed under the departmental programs which follow.

Table 5-1 shows a reorganization of the data listed in the previous chapter in order to conform to practical room sizes. For example, all seminar rooms and courses with from 20 to 29 registrants have been grouped as meeting in the same room. This size room will accommodate 30 students with typical tablet-armchair seating or, if desired, up to 22 students in a seminar-type arrangement.

It should be mentioned that the small seminar rooms presently in Warfield Hall are not considered as classrooms in this report, but as faculty offices. This provides an additional flexibility in classroom requirements, since these could be made available if necessary.

B. Department of Bible and Religion

Office space for the projected faculty is included in the program in Table 5-2. Space also is provided for a secretary, a general office area, and a special storage area required because of special activities of the department.

5-1. Wilson College. Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students: Classroom-Type Space

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Classrooms							
Capacity							
30 stations[a]	14.4	26/30	11230	30/30	12960	35/30	15120
40 stations	13.0	1/40	520	1/40	520	1/40	520
Auditorium							
Capacity							
240 stations	10.6	1/240	2545	--	--	--	--
360 stations	10.6	--	--	1/360	3815	1/360	3815
Subtotal			14295		17295		19455
Miscellaneous space							
Projection booth	80	1	80	1	80	1	80
Preparation area	--	--	240	--	240	--	240
General storage	--	--	240	--	240	--	240
Subtotal			560		560		560
Total			14855		17855		20015

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] Capacity 22 if used as seminar room.

5-2. Wilson College. Academic Departments: Bible and Religion; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Office space							
Faculty	120	3	360	4	480	5	600
Secretary	75	1	75	1	75	1	75
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			555		675		795
Service space							
General storage (includes Association storage)	--	--	120	--	120	--	120
Total			675		795		915

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

C. Department of Classical Languages and Literature

As shown in Table 5-3, this department requires office space for faculty and an area for the display and catalog of the artifacts under the control of the department.

D. Department of Economics

Here the requirement is for office areas only, as indicated in Table 5-4.

E. Department of Education

In this department, besides the usual office requirements, there is an additional requirement for the display and storage of teaching materials. The program is given in Table 5-5.

F. Department of English

Again, as shown in Table 5-6, the requirement is for office areas only. It should be noted, however, that somewhat additional office space has been added because of the size of the department and the amount and the number of filing cabinets required.

G. Department of Fine Arts and Arts Center

Table 5-7 includes the program for the Department of Fine Arts, while Table 5-8 lists interdepartmental facilities which can be used by art, dance, drama and music.

In addition to the office space required by the Department of Fine Arts, teaching studio space for elementary, beginning and advanced painting, sculpture and graphics is programmed. Space for the department's slide collection is included.

5-3. Wilson College. Academic Departments: Classical Languages and Literature; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	3	360	3	360
Coats, files, miscellaneous (includes slide storage)	--	--	120	--	120	--	120
Subtotal			480		480		480
Service space							
Artifact display and catalog	--	--	100	--	100	--	100
Total			580		580		580

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-4. Wilson College. Academic Departments: Economics; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	3	360	3	360
Coats, files, miscellaneous	--	--	120	--	120	--	120
Total			480		480		480

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-5. Wilson College. Academic Departments: Education; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	2	240	2	240	3	360
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			360		360		480
Service space							
Teaching materials display	--	--	75	--	75	--	75
Teaching materials storage	--	--	75	--	75	--	75
Subtotal			150		150		150
Total			510		510		630

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-6. Wilson College. Academic Departments: English; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	9	1080	11	1320	12	1440
Coats, files, miscellaneous	--	--	180	--	180	--	180
Total			1260		1500		1620

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-7. Wilson College. Arts Center: Fine Arts; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	1	120	2	240	2	240
Faculty: office studios	300	4	1200	4	1200	5	1500
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			1440		1560		1860
Teaching studio space							
Elementary							
Work stations	35	1/25	875	1/25	875	1/25	875
Storage and auxiliary	--	--	150	--	150	--	150
Painting							
Work stations	45	1/20	900	1/20	900	1/20	900
Storage and auxiliary	--	--	200	--	200	--	200
Advanced painting							
Work stations	55	1/15	825	1/15	825	1/20	1100
Storage and auxiliary	--	--	200	--	200	--	200
Graphics							
Press room	--	--	750	--	750	--	750
Storage and auxiliary	--	--	300	--	300	--	300
Acid room	--	--	60	--	60	--	60
Sculpture							
Work stations	60	1/15	900	1/15	900	1/15	900
Wheel area	25	1/2	50	1/2	50	1/3	75
Kilns	50	1	50	1/2	100	1/2	100
Drying	--	--	100	--	100	--	100
Storage and auxiliary	--	--	300	--	300	--	300

(Continued)

5-7. (Continued)

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Teaching studio space (continued)							
Welding-metal casting	--	--	300	--	300	--	300
Subtotal			5960		6010		6310
Miscellaneous space							
Slide collection	--	--	240	--	240	--	240
Total			7640		7810		8410

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-8. Wilson College. Arts Center: Interdepartmental Facilities; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Recital hall-theater-auditorium							
Audience space	9.2	920	8465	--	--	--	--
Audience space	8.6	--	--	1140	9805	--	---
Audience space	8.2	--	--	--	--	1370	11235
Stage	--	--	1600	--	1600	--	1600
Orchestra pit	--	--	300	--	300	--	300
Projection booth	80	1	80	1	80	1	80
Dressing rooms	200	2	400	2	400	2	400
Piano storage	--	--	200	--	200	--	200
Scene docks	750	2	1500	2	1500	2	1500
Paint shop	--	--	400	--	400	--	400
Property room	--	--	600	--	600	--	600
Set storage	--	--	1000	--	1000	--	1000
Miscellaneous storage	--	--	400	--	400	--	400
Wardrobe	--	--	400	--	400	--	400
Box office	--	--	50	--	50	--	50
Subtotal			15395		16735		18165
Miscellaneous space							
Greenroom	25	1/20	500	1/20	500	1/20	500
Kitchenette	--	--	100	--	100	--	100
Gallery-museum	--	--	1500	--	1500	--	1500
Coatroom	1.25	500	625	500	625	500	625
Gallery storage	--	--	400	--	400	--	400
Gallery workroom	--	--	500	--	500	--	500
Rehearsal room	--	--	1200	--	1200	--	1200

(Continued)

5-8. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Miscellaneous space (continued)							
Subtotal			4825		4825		4825
Total			20220		21560		22990

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

The interdepartmental facilities include a recital hall-theater-auditorium along with required supporting space such as dressing rooms, storage areas, shops and the other areas which typically go into this kind of facility. Provision also is made for a gallery-museum for the display of artifacts and materials now owned by the College, as well as a place to display traveling shows and student work.

H. Department of French

In addition to the office space required by the department, space is provided for the departmental library. The program is found in Table 5-9.

I. Department of Geography

Because of the small size of this department, the space provided in Table 5-10 is for a faculty office only.

J. Department of German

Table 5-11 includes the office space necessary for the department, along with sufficient space to house the departmental library.

K. Department of History

It will be seen in Table 5-12 that only office space is required for the department.

L. Department of Music

As shown in Table 5-13, this department requires specialized space which differs in kind and size from that of the more typical humanities departments. For example, office space for faculty members of the department must be large enough to accommodate pianos as well as desks and chairs, and space for a student

5-9. Wilson College. Academic Departments: French; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	8	960	9	1080	11	1320
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			1080		1200		1440
Service space							
Library	--	--	240	--	240	--	240
Total			1320		1440		1680

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-10. Wilson College. Academic Departments: Geography; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	1	120	2	240	2	240
Total			120		240		240

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-11. Wilson College. Academic Departments: German; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	4	480	4	480
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			480		600		600
Service space							
Library	--	--	90	--	90	--	90
Total			570		690		690

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-12. Wilson College. Academic Departments: History; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Office space							
Faculty	120	8	960	10	1200	12	1440
Coats, files, miscellaneous	--	--	180	--	180	--	180
Total			1140		1380		1620

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-13. Wilson College. Academic Departments: Music; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty							
Office-studios							
Piano and voice	265	2	530	3	795	3	795
History and/or theory	185	2	370	2	370	3	555
Visiting faculty	185	2	370	3	555	3	555
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			1390		1840		2025
Practice rooms							
Individual practice							
Upright piano	90	3	270	4	360	5	450
Grand piano	110	5	550	6	660	8	880
Ensemble practice	135	1	135	1	135	2	270
Organ practice	135	2	270	2	270	3	405
Harpischord practice	135	1	135	1	135	1	135
Chorus rehearsal	--	--	1080	--	1080	--	1080
Subtotal			2440		2640		3220
Miscellaneous space							
Instrument storage	--	--	300	--	300	--	300
General storage	--	--	240	--	240	--	240
Subtotal			540		540		540
Music storage space							
Music scores and chorus music	--	--	300	--	350	--	400

(Continued)

5-13. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Music storage space (continued)							
Orchestra music	--	--	100	--	120	--	150
Records and tapes	--	--	120	--	150	--	180
Subtotal			520		620		730
Recording facilities							
Student listening rooms	25	1/8	200	2/8	400	3/8	600
Reference and staff listening	--	--	150	--	150	--	150
Recording room	--	--	150	--	150	--	150
Subtotal			500		700		900
Total			5390		6340		7415

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

or students when they are taking private lessons. Practice and rehearsal areas also are provided in the program, as well as storage areas for instruments, music, recordings and so forth. Space for recording facilities also is provided.

M. Department of Philosophy

This department requires no specialized space, thus office space only is provided in the program listed in Table 5-14

N. Department of Political Science

Similarly, the program for this department, as shown in Table 5-15, includes only the office space required.

O. Department of Psychology

In addition to the office space associated with this department, a number of specialized areas are required. Three teaching laboratories and supporting space are necessary, along with research space, animal space and necessary supporting areas. The program may be found in Table 5-16

P. Science Departments

At the time the Consultants were engaged by the College, plans for a new science center had been finalized; thus, the Consultants were instructed to assume that the building would be built in accordance with the plans already approved. Nevertheless, the Consultants decided to include space programs for the sciences based upon the projections described in earlier chapters of this report, in order to evaluate the probable ability of the classrooms and teaching laboratories in the new science building to accommodate the target enrollment levels. The projections indicate that the science center as planned should be able to accommodate the science programs at the 1,200-student enrollment level without

5-14. Wilson College. Academic Departments: Philosophy; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	2	240	3	360	3	360
Coats, files, miscellaneous	--	--	120	--	120	--	120
Total			360		480		480

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-15. Wilson College. Academic Departments: Political Science; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	3	360	3	360
Coats, files, miscellaneous	--	--	120	--	120	--	120
Total			480		480		480

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-16. Wilson College. Academic Departments: Psychology; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	5	600	5	600	6	720
Coats, files, miscellaneous	--	--	120	--	120	--	120
Research assistant	60	1	60	1	60	2	120
Reference-library-seminar	--	--	400	--	400	--	400
Subtotal			1180		1180		1360
Teaching laboratory space							
Elementary	40	1/20	800	1/20	800	2/20	1600
Learning and motivation	40	1/15	600	1/15	600	1/15	600
Biological	40	1/15	600	1/15	600	1/15	600
Preparation and storage	--	--	500	--	500	--	500
Subtotal			2500		2500		3300
Research space							
Professional	100	5	500	5	500	6	600
Undergraduate	75	7	525	9	675	11	825
Dark room	--	--	100	--	100	--	100
Listening and sound room	--	--	120	--	120	--	120
Subtotal			1245		1395		1645
Service space							
Animal quarters							
Cage area	--	--	200	--	200	--	200
Preparation	--	--	75	--	75	--	75
Washing	--	--	75	--	75	--	75

(Continued)

5-16. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Service space							
Animal quarters (continued)							
Feed	--	--	75	--	75	--	75
Subtotal			425		425		425
Total			5350		5500		6730
General storage (5%)			270		275		335
Total			5620		5775		7065

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

difficulty. The programs of space requirements for the departments also were prepared and included in this report in the hopes that they will have future reference value to the College.

1. Department of Biology

The space programs for this department are listed in Table 5-17. In addition to the office space required by the department, teaching laboratories for elementary and advanced courses, research space and miscellaneous supporting space, such as animal quarters and constant temperature rooms are included.

2. Department of Chemistry

As indicated in Table 5-18, this department requires elementary, analytical, organic, and physical chemistry teaching laboratories. A number of supporting areas are required, such as balance rooms, stock room and instrument room, along with research space and areas for special equipment

3. Interdepartmental Facilities

Interdepartmental facilities for the sciences are listed in Table 5-19 The areas given are those included in the final architectural plans completed before the Consultants were retained. It should be noted that classrooms for the sciences are included in the program of "classroom-type space" listed in Table 5-1. This is because it is assumed that these rooms will be available for the use of other departments when not needed by the science departments.

5-17. Wilson College. Science Departments: Biology; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	5	600	6	720	7	840
Assistant	60	1	60	1	60	1	60
Technician	50	1	50	1	50	1	50
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			830		950		1070
Teaching laboratories							
Elementary	35	1/24	840	1/24	840	2/24	1680
Preparation and storage	--	--	150	--	150	--	150
Advanced	50	1/16	800	1/16	800	1/16	800
Preparation and storage	--	--	150	--	150	--	150
Advanced	50	1/16	800	1/16	800	1/16	800
Preparation and storage	--	--	150	--	150	--	150
Advanced	55	1/16	880	1/16	880	1/16	880
Preparation and storage	--	--	150	--	150	--	150
Subtotal			3920		3920		4760
Research space							
Faculty	110	5	550	6	660	7	770
Student	110	6	660	8	880	10	1100
Electron microscope	--	--	250	--	250	--	250
Subtotal			1460		1790		2120
Miscellaneous space							
Constant temperature rooms	50	2	100	2	100	2	100
Animal quarters	--	--	250	--	250	--	250

(Continued)

5-17. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Miscellaneous space (continued)							
Radioisotope	--	--	120	--	120	--	120
Greenhouse	--	--	350	--	350	--	350
General storage	--	--	350	--	400	--	450
Subtotal			1170		1220		1270
Total			7380		7880		9220

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-18. Wilson College. Science Departments: Chemistry; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	3	360	4	480
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			480		480		600
Teaching laboratories							
Elementary	40	1/20	800	1/20	800	1/20	800
Preparation and storage	--	--	150	--	150	--	150
Analytical	50	1/10	500	1/10	500	1/10	500
Preparation and storage	--	--	150	--	150	--	150
Organic	50	1/10	500	1/10	500	1/10	500
Preparation and storage	--	--	150	--	150	--	150
Physical	65	1/10	650	1/10	650	1/10	650
Preparation and storage	--	--	150	--	150	--	150
Balance rooms							
Elementary	15	1/8	120	1/8	120	1/8	120
Organic	15	1/5	75	1/5	75	1/5	75
Subtotal			3245		3245		3245
Research space							
Faculty	110	3	330	3	330	3	330
Student	110	4	440	5	550	6	660
Special equipment	--	--	300	--	300	--	300
Subtotal			1070		1180		1290

(Continued)

5-18. (Continued)

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Miscellaneous space							
Stockroom	--	--	600	--	600	--	600
Instrument room	--	--	200	--	200	--	200
Subtotal			800		800		800
Total			5595		5705		5935

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-19. Wilson College. Science Departments: Interdepartmental Facilities; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students[a]

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Museum space	--	--	1060	--	1060	--	1060
Library space	--	--	800	--	800	--	800
Workshop	--	--	550	--	550	--	550
Darkroom	--	--	120	--	120	--	120
Total			2530		2530		2530

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] Classrooms for the Sciences are included in the program in Table 5-1.

4. Department of Mathematics

As Table 5-20 indicates, in addition to classroom space, the department requires only office space for its faculty.

5. Department of Physics

This department, in addition to office space, requires three teaching laboratories, research space and supporting areas. The program is to be found in Table 5-21.

Q. Department of Sociology and Anthropology

Table 5-22 lists requirements for this department, consisting only of office space.

R. Department of Spanish

This department, in addition to office space, requires space for a departmental library. The program may be found in Table 5-23.

S. Summary

Table 5-24 summarizes the total academic space requirements at the three target enrollment levels.

5-20. Wilson College. Science Departments: Mathematics; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	4	480	4	480
Coats, files, miscellaneous	--	--	120	--	120	--	120
Total			480		600		600

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area colums have been rounded to nearest multiple of five.

5-21. Wilson College. Science Departments: Physics; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	2	240	2	240	2	240
Assistants	60	2	120	2	120	2	120
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			480		480		480
Teaching laboratories							
Elementary	50	1/20	1000	1/20	1000	1/20	1000
Preparation and storage	--	--	200	--	200	--	200
Electricity	50	1/8	400	1/8	400	1/8	400
Preparation and storage	--	--	200	--	200	--	200
Optics	45	1/8	360	1/8	360	1/8	360
Subtotal			2160		2160		2160
Research space							
Faculty	110	2	220	2	220	2	220
Student	110	2	220	2	220	3	320
Special apparatus	--	--	225	--	225	--	225
Subtotal			665		665		775
Miscellaneous space							
Battery room	--	--	120	--	120	--	120
Total			3425		3425		3535

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-22. Wilson College. Academic Departments: Sociology and Anthropology; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	4	480	4	480	5	600
Coats, files, miscellaneous	--	--	120	--	120	--	120
Total			600		600		720

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-23. Wilson College. Academic Departments: Spanish; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Faculty	120	3	360	3	360	4	480
Coats, files, miscellaneous	--	--	120	--	120	--	120
Subtotal			480		480		600
Service space							
Library	--	--	330	--	330	--	330
Total			810		810		930

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

5-24. Wilson College. Academic Departments: Summary of Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

	Program Area		
Department	800-Student Enrollment	1,000-Student Enrollment	1,200-Student Enrollment
Classroom-Type Space	14855	17855	20015
Bible and Religion	675	795	915
Classical Languages and Literature	580	580	580
Economics	480	480	480
Education	510	510	630
English	1260	1500	1620
Arts Center: Fine Arts	7640	7810	8410
Arts Center: Interdepartmental Facilities	20220	21560	22990
French	1320	1440	1680
Geography	120	240	240
German	570	690	690
History	1140	1380	1620
Music	5390	6340	7415
Philosophy	360	480	480
Political Science	480	480	480
Psychology	5620	5775	7065
Science Departments: Biology	7380	7880	9220
Science Departments: Chemistry	5595	5705	5935
Science Departments: Interdepartmental Facilities	2530	2530	2530
Science Departments: Mathematics	480	600	600
Science Departments: Physics	3425	3425	3535
Sociology and Anthropology	600	600	720
Spanish	810	810	930
Total	82040	89465	98780

N.B. 1. All area figures are expressed in square feet.
2. Figures have been rounded to nearest multiple of five.

CHAPTER 6

SPACE REQUIREMENTS FOR SUPPORTING ACADEMIC UNITS

This chapter describes the space requirements for two units: the Library and the Department of Physical Education.

A. Library

Table 6-1 lists the various units of space required by the Library at the three target enrollment levels. Office space is provided for the various professional and other personnel including the increase required as higher enrollment levels are reached.

In programming the book storage space, the stack space is listed as it presently exists in the relatively new Library extension. It is felt that these stack areas will serve the College over the planning interval, since a great deal of expansion in number of volumes is possible. However, other types of book storage are currently very crowded and require relief as well as expansion space for the future. In the reference and browsing areas, the Consultants estimate the present collection at less than 8,000 volumes; over the planning interval somewhat more than an additional 1,000 volumes should be provided for. Space for periodicals is currently very crowded and consists of approximately 13,000 volumes. Periodicals are increasing at about 300 per year, thus over a twenty-year period provision should be made for approximately 6,000 additional volumes. The space was programmed accordingly. Special collections are also provided for.

6-1. Wilson College. Supporting Academic Departments: Library; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Office space							
Librarian	180	1	180	1	180	1	180
Assistant librarian	120	1	120	1	120	1	120
Reference librarian	120	1	120	1	120	1	120
Other librarians	80	--	--	1	80	1	80
Other staff	60	3	180	4	240	5	300
Reception	--	--	80	--	80	--	80
General storage	--	--	120	--	120	--	120
Subtotal			800		940		1000
Book storage space							
Stacks, library extension	.08	105940	8475	105940	8475	105940	8475
Reference and browsing	.133	8400	1110	8700	1155	9000	1195
Periodicals	.133	15000	1995	17000	2260	19000	2525
Special collections							
Presbyterian	--	--	120	--	120	--	120
Wilsonia	--	--	150	--	150	--	150
Rare books	--	--	180	--	180	--	180
Subtotal			12030		12340		12645
Reader space[a]							
General reading tables: 8 percent	18	26	470	32	575	38	685
Carrells: 56 percent	30	179	5370	224	6720	268	8040
Seminar-study rooms: 20 percent	20	64	1280	80	1600	96	1920
Typing stations: 2.4 percent	25	8	200	10	250	12	300
Micromaterials reading stations: 1.6 percent	20	5	100	6	120	8	160

(Continued)

6-1. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Reader space (continued)							
Leisure reading stations: 12 percent	25	38	950	48	1200	58	1450
Faculty studies: 20 percent	50	15	750	18	900	21	1050
Subtotal			9120		11365		13605
Miscellaneous space							
Circulation counter	--	--	150	--	150	--	150
Reserve counter	--	--	80	--	80	--	80
Lobby and display	--	--	400	--	400	--	400
Card catalog and classification	--	--	550	--	550	--	550
Processing	--	--	350	--	350	--	350
Shipping and receiving	--	--	400	--	400	--	400
Temporary storage	--	--	200	--	200	--	200
General storage	--	--	360	--	360	--	360
Coats	1.25	320	400	400	500	480	600
Subtotal			2890		2990		3090
Total			24840		27635		30340

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] Based on seating 40 percent of student body.

In the reader space category the Consultants have postulated seating 40 percent of the student body. As noted earlier, this could be reduced, if necessary. The types of seating are broken down by percentages into the various different categories. The percentages reflect recent trends in library seating which indicate a strong shift to carrell type seating. Provision also is made for faculty studies.

Under miscellaneous space, various working areas are included as well as several types of storage space.

B. Department of Physical Education

In the program listed in Table 6-2, provision is made for a gymnasium for basketball, following generally accepted standards for women's basketball, an auxiliary gymnasium, a dance studio, an adaptive room, swimming pool and squash courts. Thus, six indoor teaching stations are included in the physical education program. However, the College anticipates having bowling alleys in the Student Center. This would be used as a teaching station by the department, bringing the total number of teaching stations to seven. The necessary locker, shower, and other supporting space is predicated on providing for 35 percent of the College enrollment, which reflects the tendency of most of the students to change in their rooms.

C. Summary

Table 6-3 summarizes the total required space for supporting academic units.

6-2. Wilson College. Supporting Academic Departments: Physical Education; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Office space							
Faculty	120	4	480	5	600	6	720
Assistant	60	1	60	2	120	2	120
Subtotal			540		720		840
Classroom space							
Capacity							
45 stations	13	1/45	585	1/45	585	1/45	585
Indoor athletic space							
Basketball, volleyball, badminton	--	--	7700	--	7700	--	7700
Auxiliary gymnasium	--	--	3000	--	3000	--	3000
Dance studio	--	--	2000	--	2000	--	2000
Adaptive room	--	--	360	--	360	--	360
Swimming pool	--	--	7130	--	7130	--	7130
Squash court	835	2	1670	3	2505	4	3340
Subtotal			21860		22695		23530
Miscellaneous space							
Gymnasium seating	2.5	400	1000	500	1250	600	1500
Pool seating	4.0	200	800	250	1000	300	1200
Lockers							
Women students[a]	3.5	208	730	350	1225	420	1470
Men or visitors	--	--	170	--	170	--	170
Staff	10	4	40	5	50	6	60
Showers							
Women students	24	11	265	14	335	16	385
Men or visitors	--	--	60	--	60	--	60
Staff	24	2	50	3	70	3	10

(Continued)

6-2. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Miscellaneous space (continued)							
Drying area							
Women students	--	--	120	--	180	--	200
Men or visitors	--	--	80	--	80	--	80
Staff	8	4	30	5	40	6	50
Staff dressing area	--	--	100	--	100	--	100
First aid	--	--	240	--	240	--	240
Equipment room	--	--	600	--	600	--	600
Athletic Association	--	--	500	--	500	--	500
General storage	--	--	600	--	600	--	600
Music listening	--	--	150	--	150	--	150
Lobby-lounge area	--	--	1500	--	1500	--	1500
Subtotal			7035		8150		8935
Total			30020		32150		33890

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] Based on 7 1/2" x 12" lockers for 35% of College enrollment.

6-3. Wilson College. Supporting Academic Facilities: Summary of Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

	Program Area		
Installation	800-Student Enrollment	1,000-Student Enrollment	1,200-Student Enrollment
Library	24840	27635	30340
Physical Education	30020	32150	33890
Total	54860	59785	64230

CHAPTER 7

SPACE REQUIREMENTS FOR ADMINISTRATIVE DEPARTMENTS

This chapter describes the space requirements of the administrative departments at the College. Many of these departments can be expected to grow in personnel, and thus in space, as the target enrollment levels are reached. Provision is made for these increases in the various programs. The many elements included in the administration are considered in alphabetical order.

A. Admissions Office

In Table 7-1 the space requirements for the Admissions Office include space for present personnel, along with increases felt necessary to achieve the three enrollment targets. The normal supporting space required by office activities is included in the program.

B. Alumnae Office

In Table 7-2, requirements for a somewhat expanded Alumnae Office are given on the basis of approximately one employee per 1,000 alumnae, as projected over a ten-year span. Files and workspace, presently in crowded areas, have been increased to accommodate more functionally the various equipment which this office requires.

C. Business Manager's Office

The program in Table 7-3 does not include space for all of the activities directly under the Business Manager. For example, the administration's interdepartmental facilities, the Purchasing Office, and several other units which come under the Business Manager's supervision are provided for in separate

7-1. Wilson College. Administration: Admissions Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Director	240	1	240	1	240	1	240
Associate director	180	1	180	1	180	1	180
Assistant director	120	2	240	3	360	3	360
Secretaries	75	3	225	4	300	4	300
Other clerical	60	2	120	2	120	2	120
Reception	--	--	250	--	250	--	250
Subtotal			1255		1450		1450
Service space							
Supplies	14	4	55	4	55	4	55
Files	10	6	60	9	90	11	110
Subtotal			115		145		165
Total			1370		1595		1615

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-2. Wilson College. Administration: Alumnae Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Executive secretary	180	1	180	1	180	1	180
Assistant	120	1	120	1	120	1	120
Other professional	90	1	90	1	90	1	90
Secretarial	75	1	75	1	75	1	75
Other clerical	60	1	60	2	120	3	180
Reception	--	--	100	--	100	--	100
Subtotal			625		685		745
Service space							
Supplies	14	3	40	3	40	3	40
Files	10	13	130	16	160	20	200
Workroom	--	--	330	--	410	--	490
General storage	--	--	180	--	180	--	180
Subtotal			680		790		910
Total			1305		1475		1655

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area cclumns have been rounded to nearest multiple of five.

7-3. Wilson College. Administration: Business Manager's Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Business manager	240	1	240	1	240	1	240
Assistant	120	1	120	1	120	1	120
Controller	120	1	120	1	120	1	120
Director of housing	120	1	120	1	120	1	120
Secretary	75	1	75	2	150	2	150
Reception	--	--	100	--	100	--	100
Cashier	90	1	90	1	90	1	90
Subtotal			865		940		940
Service space							
Counter	80	1	80	1	80	1	80
Accounting	--	--	225	--	225	--	225
Data processing	--	--	300	--	300	--	300
Supplies	14	1	15	1	15	1	15
Files	10	6	60	7	70	9	90
Subtotal			680		690		710
Total			1545		1630		1650

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

programs. This program is oriented toward the Business Manager's immediate office and personnel. It will be seen that additional professional personnel are provided for, although it may be some time before such personnel become necessary. Service space includes accounting, counter areas and other supporting areas. The data processing space included in this program is that for the present bookeeping data processing equipment; provision is made under interdepartmental facilities for more sophisticated equipment which can be used not only by the Administrative departments but also by the Academic departments throughout the College.

D. Dean's Office

The program listed in Table 7-4 includes office space for professional and secretarial space. Provision is made for increases in the number of faculty secretaries as higher enrollment levels are reached.

In addition, service space is provided, including interview and testing rooms, and a small library where students may study recruiting literature.

E. Development Office

The program for this department, as listed in Table 7-5, provides for some additional personnel as the office increases its scope and responsibilities. No additional specialized space is required.

F. Financial Aid Office

This office, as a separate function, is relatively new at the College. Provision is made for the director and his secretary, along with an additional clerical person as the office begins to absorb additional duties now assigned to other departments. The program is listed in Table 7-6.

7-4. Wilson College. Administration: Dean's Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Dean	240	1	240	1	240	1	240
Assistant deans	180	2	360	2	360	2	360
Secretaries	75	3	225	3	225	3	225
Faculty secretaries	75	2	150	3	225	4	300
Part-time clerical	60	3	180	3	180	3	180
Reception	--	--	100	--	100	--	100
Subtotal			1255		1330		1405
Service space							
Supplies	14	3	40	3	40	3	40
Files	10	7	70	9	90	11	110
Interview and testing rooms	90	3	270	4	360	5	450
Library							
Company literature	--	--	25	--	25	--	25
Browsing table	--	--	120	--	120	--	120
General storage	--	--	60	--	60	--	60
Subtotal			585		695		805
Total			1840		2025		2210

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-5. Wilson College. Administration: Development Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Director	240	1	240	1	240	1	240
Assistant director	120	1	120	1	120	1	120
Other professional	120	2	240	2	240	2	240
Secretaries	75	2	150	2	150	2	150
Reception	--	--	100	--	100	--	100
Subtotal			850		850		850
Service space							
Supplies	14	2	30	2	30	2	30
Files	10	5	50	6	60	7	70
Subtotal			80		90		100
Total			930		940		950

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-6. Wilson College. Administration: Financial Aid Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Director	120	1	120	1	120	1	120
Secretary	75	1	75	1	75	1	75
Other clerical	60	1	60	1	60	1	60
Reception	--	--	100	--	100	--	100
Subtotal			355		355		355
Service space							
Supplies	14	1	15	1	15	1	15
Files	10	2	20	3	30	4	40
Subtotal			35		45		55
Total			390		400		410

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

G. Interdepartmental Facilities

There are a number of administrative areas required by the College which can be used by many departments, administrative and academic. In the program in Table 7-7, provision is made for increased areas for the central mail and duplicating office, a conference room for the general use of the administrative departments, and space for the College telephone installation.

Additional data processing space also is provided, for it is felt that the College ultimately will require some computer facilities for the use of academic as well as administrative departments. The space program is also listed in Table 7-7.

H. President's Office

In the program for this office listed in Table 7-8, provision is made for the present staff along with some increase in clerical personnel anticipated as the College enrollment expands. Similarly, increased space for files is included on a proportionate basis.

I. Public Relations Office

In the program presented in Table 7-9, provision is made for a slight increase in personnel, along with increased storage and work areas, to correct the present crowded conditions in this office.

J. Purchasing Office

The only increase anticipated in this office is provision for a clerical person at the two higher enrollment levels. An increase in the service space is not anticipated, since the department has a policy of maintaining files

7-7. Wilson College. Administration: Interdepartmental Facilities; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Central mail and duplicating							
Office space							
Manager	120	1	120	1	120	1	120
Subtotal			120		120		120
Service space							
Counter	80	1	80	1	80	1	80
Vault	--	--	120	--	120	--	120
Subtotal			200		200		200
Machine area	--	--	450	--	450	--	450
Subtotal			450		450		450
Total, central mail and duplicating			770		770		770
Data processing space	--	--	600	--	600	--	600
Miscellaneous space							
Conference room	20	1/20	400	1/20	400	1/20	400
Switchboard	--	--	70	--	70	--	70
Counter	80	1	80	1	80	1	80
Subtotal			550		550		550

(Continued)

7-7. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Summary							
Central mail and duplicating			770		770		770
Data processing space			600		600		600
Miscellaneous space			550		550		550
Total			1920		1920		1920

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-8. Wilson College. Administration: President's Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
President	400	1	400	1	400	1	400
Assistant	180	1	180	1	180	1	180
Secretaries	75	2	150	2	150	2	150
Other clerical	60	--	--	1	60	1	60
Reception	--	--	100	--	100	--	100
Subtotal			830		890		890
Service space							
Supplies	14	2	30	2	30	2	30
Files	10	5	50	6	60	7	70
Subtotal			80		90		100
Total			910		980		990

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-9. Wilson College. Administration: Public Relations Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Director	240	1	240	1	240	1	240
Other professional	120	1	120	1	120	1	120
Secretary	75	1	75	1	75	1	75
Other clerical	60	1	60	1	60	1	60
Subtotal			495		495		495
Service space							
Supplies	14	2	30	2	30	2	30
Files	10	5	50	6	60	7	70
Workroom	--	--	60	--	60	--	60
General and photo equipment storage	--	--	120	--	120	--	120
Subtotal			260		270		280
Total			755		765		775

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

on a current basis only. This program appears in Table 7-10.

K. Registrar's Office

This office anticipates only small increases in personnel. The major addition is in service space to provide a counter which will increase the efficiency of the operation of the department. The program is found in Table 7-11.

L. Office of the Dean of Residence

As shown in Table 7-12, a small growth in personnel is anticipated in this department, along with a concomitant increase in service space.

M. Summary

Table 7-13 presents a summary of space requirements of the administrative departments at the three enrollment levels.

7-10. Wilson College. Administration: Purchasing Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Office space							
Director	120	1	120	1	120	1	120
Other clerical	60	--	--	1	60	1	60
Reception	--	--	100	--	100	--	100
Subtotal			220		280		280
Service space							
Supplies	14	1	15	1	15	1	15
Files	10	3	30	3	30	3	30
Subtotal			45		45		45
Total			265		325		325

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-11. Wilson College. Administration: Registrar's Office; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Registrar	180	1	180	1	180	1	180
Assistant	120	1	120	1	120	1	120
Secretary	75	1	75	1	75	1	75
Other clerical	60	1	60	2	120	2	120
Subtotal			435		495		495
Service space							
Counter	80	1	80	1	80	1	80
Supplies	14	3	40	3	40	3	40
Files	10	5	50	6	60	7	70
Subtotal			170		180		190
Total			605		675		685

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-12. Wilson College. Administration: Office of the Dean of Residence; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Dean	180	1	180	1	180	1	180
Assistant dean	120	1	120	1	120	1	120
Staff assistant	90	1	90	1	90	1	90
Secretary	75	1	75	1	75	1	75
Reception	--	--	100	--	100	--	100
Subtotal			565		565		565
Service space							
Supplies	14	2	30	2	30	2	30
Files	10	5	50	6	60	7	70
Subtotal			80		90		100
Total			645		655		665

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

7-13. Wilson College. Administrative Departments: Summary of Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Department	Program Area		
	800-Student Enrollment	1,000-Student Enrollment	1,200-Student Enrollment
Admissions Office	1370	1595	1615
Alumnae Office	1305	1475	1655
Business Manager's Office	1545	1630	1650
Dean's Office	1840	2025	2210
Development Office	930	940	950
Financial Aid Office	390	400	410
Interdepartmental Facilities	1920	1920	1920
President's Office	910	980	990
Public Relations Office	755	765	775
Purchasing Office	265	325	325
Registrar's Office	605	675	685
Office of the Dean of Residence	645	655	665
Total	12480	13385	13850

N.B. 1. All area figures are expressed in square feet.
2. Figures have been rounded to nearest multiple of five.

CHAPTER 8

SPACE REQUIREMENTS FOR STAFF AND STUDENT SERVICE SPACE

In addition to the academic and administrative categories, there are a number of supporting units at the College which must be accommodated. These range from housing and food service to bookstore, infirmary and other miscellaneous elements necessary to the proper functioning of the College.

This chapter details the space requirements for these components at the three target enrollment levels. As was the case in the other categories of space, the various departments are listed alphabetically.

A. Audio-Visual Center

This function is not a separate department at present, but is expected to become so in the future. In the space requirements listed in Table 8-1, space is provided for a supervisor of the language library, and for necessary storage and maintenance space. Except for the language laboratory, which is expected to add additional booths at the higher enrollment levels, the amount of space required by this unit will not increase greatly as the enrollment increases, because of the multiple-use of most of the equipment housed by the department.

B. Bookstore

The present bookstore is crowded, both in display and storage areas, and can be expected to become more so as enrollment increases. The space programmed in Table 8-2 is designed to correct these deficiencies. It will be noted that as much stockroom space is provided as display space. This follows typical

8-1. Wilson College. Staff and Student Service Space: Audio-Visual Center; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Supervisor	120	1	120	1	120	1	120
Language laboratory							
Booths	25	1/48	1200	1/60	1500	1/60	1500
Control station	--	--	60	--	60	--	60
Recording rooms	75	2	150	2	150	2	150
Storage and maintenance	--	--	120	--	120	--	120
Subtotal			1530		1830		1830
Miscellaneous space							
Equipment storage	--	--	150	--	150	--	150
Maintenance shop	--	--	120	--	120	--	120
General storage	--	--	100	--	100	--	100
Subtotal			370		370		370
Total			2020		2320		2320

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

8-2. Wilson College. Staff and Student Service Space: Bookstore; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

		800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
Space Category	Area per Unit	Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Manager	120	1	120	1	120	1	120
General office	--	--	120	--	120	--	120
Subtotal			240		240		240
Display space							
Books	--	--	780	--	960	--	1170
Other	--	--	520	--	640	--	780
Subtotal			1300		1600		1950
Service space							
Stockroom	--	--	1300	--	1600	--	1950
Total			2840		3440		4140

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

patterns in college bookstores. Provision has been made for increased space as higher enrollment levels are attained.

C. Department of Buildings and Grounds

The facilities presently used for this department are inadequate in many respects. Shop areas are too small and improperly arranged, and garage facilities are insufficient to house College vehicles. The space programmed in Table 8-3 is designed to correct these deficiencies.

D. Chapel

The chapel program detailed in Table 8-4 represents the amount of space occupied by present chapel facilities in Thomson Hall. It is assumed that chapels or convocations requiring the presence of the entire student body will be held in the theater-auditorium included in the program for the Arts Center.

E. Faculty Club

Some lounge space for faculty is now provided on the campus, but is not centrally located, so that faculty members find it difficult to drop in for brief periods of time. There also is a need for dining facilities for faculty members; these do not now exist.

The program in Table 8-5 is designed to provide these facilities. Space is provided for lounge and activity areas and for food service facilities. The latter are assumed to be of the short-order variety, rather than a full-range of food preparation.

8-3. Wilson College. Staff and Student Service Space: Department of Buildings and Grounds; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Professional staff	120	2	240	2	240	2	240
Drafting board	40	1	40	1	40	1	40
General storage	--	--	50	--	50	--	50
Subtotal			330		330		330
Service space							
Locker room	--	--	150	--	150	--	150
Toilets and shower facilities	--	--	120	--	120	--	120
Subtotal			270		270		270
Maintenance shops (including stock)							
Carpentry	--	--	1250	--	1250	--	1250
Electrical	--	--	350	--	350	--	350
Painting and spraying	--	--	600	--	600	--	600
Plumbing	--	--	600	--	600	--	600
Subtotal			2800		2800		2800
Garage facilities							
Vehicles	250	10	2500	12	3000	13	3250
Miscellaneous space							
Maintenance stores	--	--	600	--	600	--	600
Miscellaneous building materials	--	--	700	--	700	--	700

(Continued)

8-3. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Miscellaneous space (continued)							
Grounds equipment and supply storage	--	--	600	--	600	--	600
Subtotal			1900		1900		1900
Total			7800		8300		8550

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

8-4. Wilson College. Staff and Student Service Space: Chapel; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space Chaplain	120	1	120	1	120	1	120
Chapel facilities	--	--	4160[a]	--	4160[a]	--	4160[a]
Total			4280		4280		4280

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] Area of present chapel facilities.

8-5. Wilson College. Staff and Student Service Space: Faculty Club; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Club office	120	1	120	1	120	1	120
Coats, files, miscellaneous	--	--	150	--	150	--	150
Subtotal			270		270		270
Food service space							
Dining room	14	30	420	33	460	39	545
Serving space	2.4	30	70	33	80	39	95
Kitchen space							
Preparation	5.6	30	170	33	185	39	220
Dishwashing	1.2	30	35	33	40	39	45
Refrigerators	.9	30	25	33	30	39	35
Storage	1.2	30	35	33	40	39	45
Receiving	--	--	50	--	50	--	50
Trash and garbage	--	--	50	--	50	--	50
Subtotal			855		935		1085
Other space							
Lounge	25	31	775	35	875	42	1050
Activity room	12	31	370	35	420	42	505
Subtotal			1145		1295		1555
Service space							
General storage	--	--	240	--	240	--	240

(Continued)

8-5. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Service space (continued)							
Ladies' lounge	--	--	120	--	120	--	120
Subtotal			360		360		360
Total			2630		2860		3270

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

The program assumes that no more than 40 percent of the projected faculty will be in the club at any one time, and for food service assumes that no more than 75 percent of the faculty will eat lunch in this facility, with a turnover of two.

F. Food Service

The program for food service listed in Table 8-6 assumes a continuation of the present pattern of service at the College. It is presumed that there will be two sittings at mealtime; a 30 percent margin has been added for difficulties in scheduling, for empty seats at some tables, etc. Space also is provided for serving, food preparation and storage, as well as for personnel. An increased amount of space for coats, books, and so forth is programmed, since present facilities are inadequate. It is assumed that the present private dining room for special functions will remain as is.

G. Infirmary

In the infirmary, space is provided for a physician, a psychiatrist, and a psychological counselor. Space for out-patients and in-patients is included. The amount of in-patient space is based on present patterns prevailing at Wilson-approximately one bed per 50 students. Single rooms are provided for 25 percent of the beds; the remainder are in double rooms. Space also is provided for nurses' facilities and various categories of supporting facilities. See Table 8-7.

H. Laundry

Table 8-8 lists space for the College laundry. No effort was made to relate the size of the laundry to numbers of students, as it was felt that present equipment should be adequate to handle the workload. The amount of space listed, therefore, is that now occupied by the present laundry.

8-6. Wilson College. Staff and Student Service Space: Food Service; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Manager	120	1	120	1	120	1	120
Clerk	75	1	75	1	75	1	75
Files and miscellaneous	--	--	75	--	75	--	75
Reception	--	--	60	--	60	--	60
Subtotal			330		330		330
Dining facilities							
Main dining room	14	520	7280	650	9100	780	10920
Private dining room	20	18	360	18	360	18	360
Subtotal			7640		9460		11280
Serving space	2.4	520	1250	650	1560	780	1870
Kitchen space							
Preparation	5.6	520	2910	650	3640	780	4370
Dishwashing	1.2	520	625	650	780	780	935
Refrigerators and freezers	.9	520	470	650	585	780	700
Storage	1.2	520	625	650	780	780	935
Receiving	.3	520	155	650	195	780	235
Trash and garbage	.4	520	210	650	260	780	310
Subtotal, dining facilities			13885		17260		20635
Vending machines	.6	800	480	1000	600	1200	720
Staff space							
Locker and shower rooms							
Men	--	--	150	--	150	--	150

(Continued)

8-6. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Staff space							
Locker and shower rooms (continued)							
Women	--	--	240	--	240	--	240
Staff dining	--	--	170	--	170	--	170
First aid	--	--	120	--	120	--	120
Subtotal			680		680		680
Miscellaneous space							
Cloakroom	1.25	520	650	650	810	780	975
Total			16025		19680		23340

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

8-7. Wilson College. Staff and Student Service Space: Infirmary; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Doctor	120	1	120	1	120	1	120
Psychiatrist	120	1	120	1	120	1	120
Psychologist	150	1	150	1	150	1	150
Reception and waiting	--	--	150	--	150	--	150
Coats, files, miscellaneous	--	--	150	--	150	--	150
Subtotal			690		690		690
Outpatient space							
Dressing rooms	25	2	50	2	50	2	50
Examining room	120	1	120	1	120	1	120
Treatment room	150	1	150	1	150	1	150
Dispensary	120	1	120	1	120	1	120
Laboratory	100	1	100	1	100	1	100
Subtotal			540		540		540
Inpatient space							
Single rooms	100	4	400	5	500	6	600
Double rooms	180	6	1080	8	1440	9	1620
Pantry	--	--	100	--	100	--	100
Nursing station	--	--	100	--	100	--	100
Subtotal			1680		2140		2420
Miscellaneous space							
Nurses' rooms	100	2	200	2	200	2	200

(Continued)

8-7. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Miscellaneous space (continued)							
Nurses' lounge	--	--	150	--	150	--	150
Linen room	--	--	80	--	80	--	80
Medical and nursing supplies	--	--	120	--	120	--	120
General storage	--	--	120	--	120	--	120
Subtotal			670		670		670
Total			3580		4040		4320

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

8-8. Wilson College. Staff and Student Service Space: Laundry; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Laundry space	--	--	4170	--	4170	--	4170
Total			4170		4170		4170

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

I. Student Residential Facilities

In the program for dormitories given in Table 8-9 the number of students to be housed was calculated by deducting from the total number the projected numbers of special students, the projected numbers of students to be housed in the language houses, and the number of dormitory beds presently existing on the campus. Private rooms are provided on the basis of 25 percent of those likely to seek psychological counseling, since it is felt that in many instances problems can be more readily solved if the student can be moved into a single room.

At the 1,200 student-enrollment level it is assumed that three dormitories will be built to house the projected beds required. If two larger buildings are built instead, living quarters for heads of houses can be reduced from three to two. Recreational facilities, various storage, laundry, kitchenette, and other service areas are included in the program. If only two buildings are built the service areas listed also can be reduced.

J. Student Center

At the present time a Student Center as such does not exist on the campus. The program in Table 8-10 is designed to provide the necessary space for this facility.

Space is provided for administrative personnel, lobby and activity areas, recreational areas, snackbar, meeting areas, post office, and various other facilities. The program was predicated on the assumption that the peak load in the activity and recreational areas will not exceed 25 percent of the total student body. The snackbar provides for additional space over and above this

8-9. Wilson College. Staff and Student Service Space: Student Residential Facilities; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Housing							
Number to be housed	--	784	--	980	--	1176	--
Less number in language houses	--	40	--	50	--	60	--
Less number in other existing residence halls	--	727	--	727	--	727	--
Total number to be housed	--	17	--	203	--	389	--
Living quarters: students							
Study - bedrooms (double)	190	--	--	99	18810	190	36100
Study - bedrooms (single)	120	--	--	5	600	10	1200
Toilet and shower facilities	13.7	--	--	203	2780	389	5330
Subtotal			--		22190		42630
Living quarters: heads of houses							
Bedroom	180	--	--	1	180	3	540
Sitting room	180	--	--	1	180	3	540
Closet	20	--	--	1	20	3	60
Toilet - bath	64	--	--	1	65	3	190
Kitchenette	90	--	--	1	90	3	270
Subtotal			--		535		1600
Recreational facilities							
Lounges and visitor areas	20	--	--	40	800	78	1560
T.V. rooms	18	--	--	20	360	39	700
Card rooms	20	--	--	20	400	39	780
Subtotal			--		1560		3040

(Continued

8-9. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Other service facilities							
Trunk rooms	270	--	--	3	810	9	2430
Linen storage	60	--	--	3	180	9	540
Pressing rooms	120	--	--	3	360	9	1080
Ball gown storage	150	--	--	1	150	3	450
Kitchenettes	80	--	--	1	80	3	240
Drying rooms	90	--	--	3	270	9	810
Laundry rooms	400	--	--	1	400	3	1200
Vending machine rooms	200	--	--	1	200	3	600
Trash rooms	150	--	--	1	150	3	450
Public telephones	7	--	--	3	20	9	630
Men's rooms	a	--	--	a	a	a	a
Subtotal			--		2620		8430
Total			--		26905		55700

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[a] As required.

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

8-10. Wilson College. Staff and Student Service Space: Student Center; Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Office space							
Director	180	1	180	1	180	1	180
Other professional	120	1	120	1	120	1	120
Clerical	75	1	75	1	75	1	75
Reception	--	--	100	--	100	--	100
Coats, files, miscellaneous	--	--	100	--	100	--	100
Subtotal			575		575		575
Service space							
Main lobby							
Control and information desk	--	--	300	--	300	--	300
Check room	1.25	200	250	250	315	300	375
Public telephones	a	a	a	a	a	a	a
Toilets	a	a	a	a	a	a	a
Subtotal			550		615		675
Activity areas							
Game room	20	1/36	720	1/48	960	1/60	1200
Table tennis	345	1/4	1380	1/5	1725	1/6	2070
Bowling[b]	575	1/6	3450	1/6	3450	1/6	3450
Darkroom	30	1	30	1	30	1	30
Subtotal			5580		6165		6750
Control and storage areas							
Game room	--	--	240	--	240	--	240
Table tennis	--	--	180	--	180	--	180

(Continued)

8-10. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Control and storage areas (continued)							
Bowling	--	--	180	--	180	--	180
Subtotal			600		600		600
General recreational areas							
Lounge	25	1/40	1000	1/50	1250	1/60	1500
Reading, browsing, quiet room	25	1/20	500	1/25	625	1/30	750
General storage	--	--	240	--	240	--	240
Subtotal			1740		2115		2490
Snack bar							
Dining space	10	130	1300	160	1600	195	1950
Serving space	.8	130	105	160	130	195	155
Food preparation and storage	1.3	130	170	160	210	195	255
Dishwashing	.6	130	80	160	95	195	120
Subtotal			1655		2035		2480
Student organization and meeting areas							
Student publications							
Billboard							
Editor	120	1	120	1	120	1	120
Workroom and storage	--	--	300	--	300	--	300
Conococheague							
Editor	120	1	120	1	120	1	120
Workroom and storage	--	--	300	--	300	--	300
Darkroom	30	1	30	1	30	1	30
Kittochtinny Players	--	--	300	--	300	--	300

(Continued)

8-10. (Continued)

Space Category	Area per Unit	800-Student Enrollment Number of Units	800-Student Enrollment Program Area	1,000-Student Enrollment Number of Units	1,000-Student Enrollment Program Area	1,200-Student Enrollment Number of Units	1,200-Student Enrollment Program Area
Student organization and meeting areas (continued)							
YWCA	--	--	300	--	300	--	300
Government Association	20	1/20	400	1/20	400	1/20	400
Other organizations	20	2/25	1000[c]	2/25	1000[c]	2/25	1000[c]
Day student lounge	25	1/16	400	1/20	500	1/24	600
Subtotal			3270		3370		3470
Post office							
Office space							
Supervisor (includes safe)	120	1	120	1	120	1	120
Mailboxes							
Student	.25	800	200	1000	250	1200	300
Faculty and other	.25	76	20	88	20	104	25
Administration, etc.	.25	50	15	50	15	50	15
Parcel storage	--	--	150	--	175	--	200
Worktables (3' x 8')	80	1	80	1	80	2	160
Windows	25	1	25	2	50	2	50
Supplies	14	2	30	3	40	4	55
Storage and miscellaneous	--	--	100	--	100	--	100
Lobby and receiving	--	--	400	--	400	--	400
Subtotal			1140		1250		1425
Miscellaneous space							
Vending machines	20	8	160	10	200	12	240
Employees' locker room							
Men	--	--	120	--	120	--	120
Women	--	--	120	--	120	--	120
Subtotal			400		440		480

(Continued)

8-10. (Continued)

Space Category	Area per Unit	800-Student Enrollment		1,000-Student Enrollment		1,200-Student Enrollment	
		Number of Units	Program Area	Number of Units	Program Area	Number of Units	Program Area
Summary							
Office space			575		575		575
Service space			550		615		675
Activity areas			5580		6165		6750
Control and storage areas			600		600		600
General recreational areas			1740		2115		2490
Snack bar			1655		2035		2480
Student organization and meeting areas			3270		3370		3470
Post office			1140		1250		1425
Miscellaneous space			400		440		480
Total			15510		17165		18945

N.B. 1. All area figures are expressed in square feet.
2. Figures in Program Area columns have been rounded to nearest multiple of five.

[a] As required.

[b] Also used for Physical Education classes.

[c] Divisible by moveable partitions.

figure. It should be noted that the bowling alleys programmed for this building also will be used as a teaching station for the Department of Physical Education.

For convenience, a summary by space category concludes this table.

K. Summary

Table 8-11 summarizes the staff and student service space at the three target enrollment levels.

8-11. Wilson College. Staff and Student Service Space: Summary of Space Requirements at Target Enrollments of 800 Students, 1,000 Students and 1,200 Students

	Program Area		
Department	800-Student Enrollment	1,000-Student Enrollment	1,200 Student Enrollment
Audio-Visual Center	2020	2320	2320
Bookstore	2840	3440	4140
Department of Buildings and Grounds	7800	8300	8550
Chapel	4280	4280	4280
Faculty Club	2630	2860	3270
Food Service	16025	19680	23340
Infirmary	3580	4040	4320
Laundry	4170	4170	4170
Student Residential Facilities	--	26905	55700
Student Center	15510	17165	18945
Total	58855	93160	129035

N.B. 1. All area figures are expressed in square feet.
2. Figures have been rounded to nearest multiple of five.

CHAPTER 9

RECOMMENDED BUILDING OCCUPANCY PATTERNS

There are three principal remaining tasks of the study: one is a determination of the most economic and efficient pattern for housing the activities whose space requirements have been described in the preceding chapters, as well as the determination of the best use of existing buildings in such a way as to minimize the cost of both alterations and new construction. Another is to recommend the optimum utilization of the present site, and present recommendations for acquiring additional land to accommodate the expansion of the College. The final task is to develop budget estimates of the capital costs of achieving the development program. This chapter is concerned with the occupancy patterns in existing and proposed construction.

A number of assumptions about the development of the College underlie the analyses and recommendations made in this chapter. These are listed below.

1. The Biology and Lortz Buildings will be vacated when the Science Building, under construction at the time of this report, is occupied by the Science Departments. It is assumed that the Biology Building, because of its present condition and the excessive costs of remodeling, will be demolished by the time of the ultimate development of the College.

2. The ground floor of Alumnae Hall, presently occupied by the Department of Fine Arts, will be available for other purposes when this department moves into a new Fine Arts Center.

3. Parts of the first and ground floors of Davison Hall, now occupied by the Department of Physical Education, will be available for other use when this department moves to its new facility across the Conococheague Creek.

A. Gross and Net Area

Before proceeding with the analysis of occupancy patterns and construction requirements it is appropriate to consider the use of the terms "gross" and "net" area. The gross area of a building may be defined as the sum of all floor areas, measured between the outside faces of the exterior walls. Thus, the entire building is included in the gross area. The net area is the gross area less the sum of the areas devoted to verticle and horizontal circulation, exterior walls and interior partitions, mechanical and electrical equipment space (including shafts, ducts and chases), toilets, janitorial and miscellaneous building service rooms. The remaining net area may also be termed useable area, useable being equated with the space used by the occupant (e.g., an academic department) for his activities. Up to this point in the report all area figures have been stated in terms of net, or useable, square feet. In this chapter new construction will be estimated as both net and gross area. However, since gross area is finally determined by the architect designing individual buildings, the Consultants' role will simply be to indicate the approximate gross area based on good planning practice.

The net areas of the principal existing buildings are shown in Appendix B. These figures may, however, prove misleading when related to space requirements. An existing building with 20,000 net square feet will almost certainly be able to absorb only 80 to 90 percent of that figure in terms of program space requirements. Space must necessarily be lost because the original designs of the buildings on the campus did not incorporate units of the size recommended in this report. For example, some of the existing faculty offices are larger than 120 square feet, yet cannot be reduced in size without incurring alteration costs greater than the value of the space which might be recovered. Similarly, in altering one large room to create two or more smaller spaces, it may be necessary to increase the corridor space to provide access to the newly created areas. Although the original space has been made more productive, the building's resulting net area has been reduced.

The ratio of net to gross area varies with the nature of occupancy and the effectiveness of architectural planning. A building with comparatively few, large rooms (e.g., a gymnasium, student center, or library) will have a higher net to gross ratio than a typical building for instruction. A building for the sciences, with considerable space devoted to ventilation ducts and mechanical equipment, will have a lower net to gross ratio than a building primarily devoted to economics or history.

On the basis of experience at a number of institutions, in estimating the gross area requirements of new construction the Consultants have used a number of net to gross area assumptions in estimating the number of gross square feet required for new construction for various buildings. These assumptions are shown in the appropriate tables in this chapter. Also, when recommending alterations to existing facilities, the Consultants presuppose a certain amount of loss in net useable area. In general, this is estimated at 12.5 percent.

B. Faculty Offices

Table 9-1 shows the number of faculty offices which are presently available at the College and includes five additional offices which can be made available with alterations to the first floor of Alumnae Hall. It should be noted that offices presently or in the future available in the Biology Building are not included, since it is assumed that this building will be demolished in the future. Table 9-2 shows the number of additional faculty offices which will be required at the target enrollment levels. It should be noted that it is assumed that the new Arts Center will provide office space for the projected faculty in the Department of Fine Arts regardless of the availability of office space elsewhere. It is also assumed, as explained later in this chapter, that the present faculty offices in Davison Hall and in Thomson Hall will be assigned to the administrative and/or music departments in the future.

With the completion of alterations it will be seen that a surplus of one faculty office can be expected at the 800 enrollment level, ten additional offices will be required at the 1,000 enrollment level, with twenty-four additional faculty offices needed at the 1,200 enrollment level. It is recommended that these additional offices be included in the new Arts Center when it is built.

9-1. Wilson College. Faculty Office Space Available in Existing and Planned Buildings[a], and Additional Offices Available by Alteration

Building	Existing	Available by Alteration	Total
Alumnae Hall	5	5	10
Davison Hall	4	--	4
Lortz Hall	5	--	5
Thomson Hall	13	--	13
Science Building	15	--	15
Warfield Hall	33	--	33
Total	75	5	80

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[a] Excluding the Biology Building which is assumed to be demolished.

9-2. Wilson College. Additional Faculty Offices Required at Target Enrollments of 800, 1,000 and 1,200 Students

	800	1000	1200
Projected number of faculty	77	89	104
Faculty offices available:	80	80	80
Surplus (+) or deficit (-)	+ 3	- 9	-24
Less Fine Arts	5	6	7
Surplus (+) or deficit (-)	+ 8	- 3	-17
Plus replacing offices in:			
Davison	4	4	4
Thomson	3	3	3
Surplus (+) or deficit (-)	+ 1	-10	-24

C. General Purpose Classrooms

Table 9-3 shows the number of classrooms available in existing construction, including the new Science Building. Again it is assumed that the Biology Building will not be available, and will be demolished. It will be noted that the requirement for larger classrooms should be met by the space included in the new Science Center. As the table indicates, a total of 31 general-purpose classrooms will be available in existing construction after the new Science Building is completed, and alterations are made in Alumnae and Warfield Halls.

Table 9-4 shows the projected number of classrooms required at the three target enrollment levels along with those available presently or to become available through alterations to existing construction. The deficit shown for the 1,000 and 1,200 target enrollment levels are included in the program for new construction for the Fine Arts Center described in the following section of this report.

D. Fine Arts Center

Table 9-5 shows the net area requirements for the new Fine Arts Center based on the program for the Department of Fine Arts found in Table 5-1. It also includes the additional requirements for classrooms and offices to satisfy the overall requirements of the College at the three target enrollment levels.

It will be seen that a useable building area of 8,070 square feet is estimated for the 800-student enrollment level, 9,870 square feet for the

9-3. Wilson College. Classrooms Available in Existing and Planned Buildings[a], and Classrooms Available by Alteration

Building	30/20 Stations Existing	30/20 Stations Available by Alteration	40 Stations Existing	240 Stations Existing	Total
Alumnae Hall	1	3	--	--	4[b]
Lortz Hall	2	--	--	--	2
Science Building	6	--	1	1	8
Thomson Hall	1	--	--	--	1
Warfield Hall	14	2	--	--	16
Total	24	5	1	1	31

---

[a] Excluding the Biology Building, which is assumed to be demolished.

[b] Only one room will be available at the 1200 student enrollment, as an additional Psychology laboratory will be required.

9-4. Wilson College. Additional Classrooms Required at Enrollments of 800, 1,000 and 1,200 Students

	800	1000	1200
Projected classrooms required	28	32	37
Classrooms available	31	31	30[a]
Surplus (+) or deficit (-)	+ 3	- 1	- 7

---

[a] Psychology will require an additional laboratory at this enrollment level, thus one classroom in Lortz Hall will be lost

9-5. Wilson College. Fine Arts Center; New Construction Required at Target Enrollments of 800, 1,000 and 1,200 Students

Department	800	1000	1200
Fine Arts (Table 5-1)	7640	7810	8410
Fine Arts Classrooms (@432 sq. ft.)	(1) 430	(1) 430	(2) 865
Other Classrooms (@432 sq. ft.)	--	(1) 430	(5)2160
Faculty offices (@120 sq. ft.)	--	(10)1200	(24)2880
Total	8070	9870	14315

N.B. All area figures have been rounded to the nearest multiple of five.

1,000-student enrollment level and 14,315 square feet for the 1,200-student enrollment level.

E. Library

The Consultants tested a number of different methods of gaining more space from present library facilities, and believe that a large portion of the additional reader space which will required can be obtained by adding more carrells in the Stewart Library Extension, and achieving some improved utilization of the older building. However, additional space will be required at all three target enrollment levels to house special collections, additional reader space, and some work and miscellaneous areas. In addition, space must be included for the Audio-Visual Center, including the language laboratory, as listed in Table 8-1. The total useable space requirements for new construction at the three target enrollment levels, as shown in Table 9-11, are 7,360 square feet at the 800 enrollment level, 8,800 square feet at the 1,000 enrollment level, and 10,990 square feet at the 1,200-student enrollment level. It is assumed that the present stack area will satisfy the book storage requirements of the College during the planning period, since a great deal of space for expansion is available in the present shelving, as noted in earlier chapters of this report.

It should be noted that library seating is estimated at 40 percent of enrollment. If difficulties in financing are encountered, it is believed that library seating can be reduced to 30 or 25% of enrollment without impairing the effectiveness of the library, thus reducing the size of required additional construction.

F. Department of Music and Administrative Departments

The Department of Music and the administrative departments are considered together in this section of the report because of their proximity and the possibility of joint use of space to become available in Thomson Hall.

In Table 9-6 it will be seen that the Department of Music will show a deficit at each target-enrollment level. It is assumed that the rehearsal hall listed in the program will be satified by using space in the new recital hall-auditorium.

Table 9-7 shows the amount of space required by the administrative departments at the three target enrollment levels, and the deficit that must be satisfied after existing space in Edgar Hall is fully utilized. Space for the Alumnae and Admissions offices are deducted because it is recommended that they remain in their present locations in other buildings. Table 9-8 shows the combined additional space required for Music and the administrative departments at the three target enrollment levels.

Table 9-9 shows the additional space which will be available in Thomson and Davison Halls after the Student Center and new Physical Education buildings are completed. In Thomson, it is assumed that the student organization offices will become available, and that the present lounge area in the basement will no longer be required for this purpose because of the availability of lounge areas in the Student Center. In Davison it is assumed that the present locker room areas on the ground floor will no longer be needed, and that the first floor, which presently includes faculty offices, storage areas and certain miscellaneous areas, also will become available.

9-6. Wilson College. Space Required for Department of Music at Target Enrollments of 800, 1,000 and 1,200 Students

	800	1000	1200
Program requirements (Table 5-13)	5390	6340	7415
Less Rehearsal Hall	1080	1080	1080
Subtotal	4310	5260	6335
Less present space	4295	4295	4295
Total	- 15	- 965	-2040

9-7. Wilson College. Space Required for Administrative Departments at Target Enrollments of 800, 1,000 and 1,200 Students

	800	1000	1200
Program requirements (Table 7-14)	12480	13385	13850
Less space available in Edgar Hall	7125	7125	7125
Surplus (+) or deficit (-)	-5355	-6260	-6725
Less Admissions and Alumnae[a]	2675	3070	3270
Surplus (+) or deficit (-)	-2680	-3190	-3455

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[a] To remain in Thomson Hall and Laird Hall respectively.

9-8. Wilson College. Additional Space Required for Administrative Departments[a] and Department of Music at Target Enrollments of 800, 1,000 and 1,200 Students

Required in Addition to Present Space	800	1000	1200
Administration	2680	3190	3455
Music	15	965	2040
Total	2695	4155	5490

---

[a] Excluding Admissions and Alumnae offices.

9-9. Wilson College. Additional Space Available for Music and Administrative Departments in Thomson and Davison Halls

Building	Square Feet	Square Feet
Thomson		
Basement	2130	
Less 12.5% adjustment factor		1885
Davison		
Ground floor	900	
Less 12.5% adjustment factor		795
First floor	1600	
Less 12.5% adjustment factor		1415
Total available		4095

Table 9-10 combines the previous tables to show the amount of surplus or deficit square footage that will be required for the administrative departments and the Department of Music at the three target enrollment levels. It will be seen that a surplus of 1,400 square feet can be anticipated at the 800 enrollment level, and deficits of 60 and 1,395 square feet at the higher enrollment levels.

The aforegoing indicates that as the College reaches an enrollment of 1,200 students some additional space will be required by the Department of Music and the administrative departments. It is not possible to judge at this time which departments will grow more rapidly and require the space. However, with some inconvenience, it is likely that the Department of Music can get along with fewer practice rooms than listed in the program of space requirements in Table 5-13; thus, some space may be saved. It should also be noted that although not presently used for these purposes, there is space available in Norland Hall for administrative offices if pressures get too great.

Finally, it should be mentioned that in the future the College may wish to build new space for the Department of Music as a part of, or a wing attached to, the Fine Arts Center as presently envisaged. Should this be done, the space made available in Thomson Hall will provide a cushion for various unforeseen activities, and certainly for additional faculty and/or administrative offices.

9-10. Wilson College. Administrative and Music Departments; Surplus or Required Additional Space at Target Enrollments of 800, 1,000 and 1,200 students

	800	1000	1200
Additional space required (Table 9-8)	2695	4155	5490
Space available (Table 9-9)	4095	4095	4095
Surplus (+) or deficit (-)	+1400	- 60	-1395

G. Admissions and Alumnae Offices

These two offices are considered separately from the other administrative departments because they are located in buildings other than Edgar Hall, and are expected to remain within present locations.

The Alumnae Office can expand into part of the present lounge area of Laird Hall. After satisfying the program requirements at the target enrollment levels, as listed in Table 7-2, there would still be a surplus of space in this area of Laird Hall of 610 square feet at the 800 enrollment level, 440 square feet at the 1,000 enrollment level and 260 square feet at the 1,200-student enrollment level.

At present, the Admissions Office occupies 1,788 square feet of space. As compared with the program requirements listed in Table 7-1 this amount of space will be adequate to house this department at all three target enrollment levels.

H. Summaries

Table 9-11 summarizes the requirements for new construction at the College at the three target enrollment levels. Both the net and gross area requirements are given, based on assumptions of net to gross relationships for the type of building required, as explained earlier in this chapter (Section A).

Summaries of the building occupancy patterns resulting from the analyses described in this chapter will be found in Tables 1-2 and 1-3 in the first chapter of this report, by building and department respectively.

9-11. Wilson College. Net and Gross Areas of New Construction Required at Target Enrollments of 800, 1,000 and 1,200 Students

	800 Students		1000 Students		1200 Students	
Building	Net Area	Gross Area	Net Area	Gross Area	Net Area	Gross Area
Buildings and grounds[a]	5400	6750[b]	5900	7375[b]	6150	7690[b]
Dormitories	--	--	26905	40155[c]	55700	83135[c]
Fine Arts Center	8070	12810[d]	9870	15665[d]	14315	22720[d]
Infirmary	3580	5345[c]	4040	6030[c]	4320[c]	6450
Laird addition (Student Center)	9000	11250[b]	10655	13320[b]	12430	15535[b]
Library addition	7360	10515[e]	8800	12570[e]	10990	15700[e]
Laundry	4170	5215[b]	4170	5215[b]	4170	5215[b]
Physical education[f]	28020	40030[e]	30150	43070[e]	31890	45555[e]
Theater-auditorium	20220	25275[b]	21560	26950[b]	22990	28740[b]
Total	85820	117190	122050	170350	162955	230740

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[a] Excluding space in present Art Studio.

[b] At ratio of 80:100.

[c] At ratio of 67:100.

[d] At ratio of 63:100.

[e] At ratio of 70:100.

[f] Excluding Dance Studio.

I. Recommended Construction, Alterations and Demolition Priorities

This section presents recommendations for achieving the development program in four phases. The recommendations are based on functional considerations and need. It is recognized, however, that in the final analysis what is built, and when, depends upon when financing for the various projects can be arranged. Nonetheless, the Consultants believe that the College should consider the phased program outlined in Table 9-12 as a desirable goal for achieving the total development program.

1. The Phased Program

a. Phase A

In Table 9-12 construction of the theater-recital hall-auditorium is recommended in the first phase, in order to correct the inadequacies of the present auditorium in Laird Hall, and also to permit renovation of a large part of this building into a student center. Similarly, the Fine Arts Center is recommended in the first phase because of inadequacies in the present space occupied by this department. The infirmary also is recommended for the first phase because of the unsuitable nature of the present infirmary, but even more important, because the present building represents a fire hazard that should be corrected at an early date.

The new gymnasium and pool should be constructed as soon as possible in order to correct inadequacies in the space now occupied by the Department of Physical Education. The present gymnasium is too small for the department's programs. Obviously, a bridge and road to provide access to the new gymnasium site also will be required.

Alterations to Lortz Hall, Warfield Hall, and Edgar Hall also should be made during the first phase of the development program: Lortz, so that it can be occupied by the Psychology Department, presently in very inadequate space; Warfield, in order to provide additional classroom space which will be required; and Edgar to provide the additional space needed by the administrative departments. Actually, the latter alterations probably should be made from time to time over a longer period, as personnel are added and the needs become more apparent. Alterations required in this building should be relatively minor.

The Biology Building should be demolished as soon as possible so that the new addition to the library can occupy that site. Finally, the Consultants believe that the new entrance to the campus should be created as soon as possible, because of the hazards inherent in the location of the present entrance.

b. Phase B

Having accomplished Phase A, the change in use of the Laird Hall auditorium and construction of an addition or additions to the building will now be possible. At this time, also, a new laundry building should be constructed, so that the present location of the laundry on the ground floor of the Dining Hall may be used for dining purposes.

There is some sentiment on the campus for leaving the laundry in its present location, and constructing another addition to Laird Hall in the direction of Thomson Hall to provide additional dining space. The Consultants feel that a more functional solution is to use the ground floor of the Dining Hall for the additional space required. However, the master plan included in the next chapter shows where such a building might be placed as an alternative solution. Cost estimates for such a building also are included in the final chapter.

The pressures on the present library space will have increased at this stage, so that an addition to the library is listed. The first new dormitory also is listed at this phase. It should be noted, however, that good practice suggests building dormitories only when the increase in applications is sufficient to insure that the dormitory rooms will be occupied by the time a dormitory is constructed.

During this phase of the development program it will now be possible to alter Alumnae Hall, and the classrooms and offices which can be provided will now be needed. Similarly, alterations to Thomson Hall are indicated at this stage for the expanding needs of the Music Department and/or the administrative departments.

At this stage, the old infirmary can be altered to provide a Faculty Club, and the present Art Studio can be re-located for use by the Department of Buildings and Grounds.

c. Phase C

In Phase C, if applications have sufficiently increased, the second of the three dormitories should be constructed. Construction of a new facility for Buildings and Grounds, to be used in conjunction with the present Art Studio, should be accomplished during this phase, and alterations made to the areas in Davison Hall now used by the Department of Physical Education to meet the needs of the administrative departments: the old gymnasium may also be demolished at this time. It should be noted, however, that there is some feeling that the old gymnasium and pool should be retained for recreational or other purposes. This, of course, is a matter of policy. The buildings can certainly be retained; the Consultants recommend demolition largely for esthetic reasons, although it should be remembered that the possibility of heavy plaster falling from the ceiling of the gymnasium represents a hazard.

Demolition of the present Buildings and Grounds structure also is recommended at this stage, to permit beautification of this area of the campus.

d. Phase D

The final phase consists only of constructing the third dormitory needed to accommodate the final target enrollment level.

As noted earlier, after the development program for the planning interval used in this report is complete, the College may wish to construct a new facility for the Department of Music in the area of the Auditorium-Fine Arts complex.

9-12. Wilson College. Construction; Alteration and Demolition Priorities at Target Enrollments of 800, 1,000 and 1,200 Students

Phase A

Construct Theater-Recital Hall-Auditorium
Construct Fine Arts Center
Construct Infirmary
Construct bridge and road to North Campus
Construct Gymnasium and Pool
Alter Lortz Hall
Alter Warfield Hall
Alter Edgar Hall
Demolish Biology Building
Demolish President's Residence
Change entrance to Campus

Phase B

Construct addition to Laid Hall
Construct Laundry Building
Construct addition to Library
Construct Dormitory
Alter Alumnae Hall
Alter Laird Hall
Alter Thomson Hall
Alter Dining Hall
Alter old Infirmary
Relocate Art Studio

Phase C

Construct Dormitory
Construct building for Buildings and Grounds
Alter Davison Hall
Demolish old Gymnasium?
Demolish old Buildings and Grounds structure

Phase D

Construct Dormitory

CHAPTER 10

MASTER PLAN OF SITE DEVELOPMENT

A master plan for a campus may be described as the spatial organization of the physical environment, including buildings, roads, walks, parking areas and landscape. The material presented in the preceding chapters implies changes to the present arrangement of these elements. These proposed changes are discussed in this chapter and shown graphically in the drawings which are included. The campus development plan is predicated on an enrollment of 1,200 students. However, should a smaller enrollment be decided upon, the locations would remain the same; only the building sizes would change.

In this chapter both functional and esthetic considerations are stressed. Although this report is not, for the most part, oriented toward matters of design, it is impossible to leave out questions of harmony, balance, proportion and other esthetic, subjective concepts when discussing the most suitable disposition of the elements listed above.

A. Existing Conditions

The proposed changes in the organization of the campus must be evaluated in reference to the plan of the campus as it exists presently. A number of recommendations are designed to overcome deficiencies in the existing physical organization. The existing campus is shown in the plan following this page.

At present a number of planning problems exist; these are listed below.

1. The present main entrance to the campus at the junction of Philadelphia Avenue and College Avenue represents a serious hazard, since this is a major highway artery. When approaching the entrance from the west, high speed traffic from the east, on College Avenue, frequently can be seen only with difficulty. Visibility is further decreased during the periods of the year when leaves are on the trees.

2. There are insufficient parking spaces for students, staff, or visitors.

3. The present site can only accommodate the new construction necessary at the target enrollment levels by increasing the intensity of land use to the point where the campus would look and be very overcrowded. In addition, the spacious feeling afforded by the present open space between the library and Warfield Hall on one hand, and Spanish House on the other, would be lost if all of the required additional new construction were to be placed on the present site. Many rare and beautiful trees also would be lost.

4. Vehicular circulation is largely through the center of the campus at present, past Norland and Edgar Halls, with a difficult jog to the north around Edgar and past the gymnasium. This presents problems for both vehicular and pedestrian traffic.

In the plan showing recommended building locations, the Consultants have endeavored to solve these problems.

B. Proposed Site Development

1. Additional Land Requirements

In order to provide sufficient space for the new Physical Education

Building and the requisite playing fields, the Consultants recommend that the College attempt to acquire 18.1 acres of additional land across the Conococheague Creek. To provide access to this property, the Consultants also recommend that the College acquire 2.5 acres south of the Creek. Both of these parcels are shown in the drawing.

The boundaries shown for these properties are approximate, as detailed surveys were not available.

2. Parking Requirements

At present, limitations are placed on the number of students who may keep cars on the campus. According to the Dean of Residence, the peak number of student cars on the campus currently is about 75. The Consultants used the present ratio in estimating the number of student parking spaces required at the three target enrollment levels. Parking also is provided for 70 percent of faculty and other staff members at any one time. In addition, parking is provided for visitors who have business on the campus. For the three target enrollments, the following parking capacities are recommended.

Personnel Category	Number of Parking Spaces Required		
	800 Students	1,000 Students	1,200 Students
Students	80	100	120
Faculty	53	61	73
Other staff	74	80	83
Visitors	18	20	20
Total	225	261	296

The distribution of the parking spaces also is of importance. The immediate vicinity of the Administration Building requires parking space, as does the area near the Admissions and Alumnae offices, and the projected Physical Education Building, auditorium, and new service area. Because of these new facilities, approximately 80 additional parking places, over and above the 296 listed above, are provided. It will be seen that other parking areas are kept, so far as possible, on the periphery of the campus. Through vehicular traffic thus will be kept to a minimum.

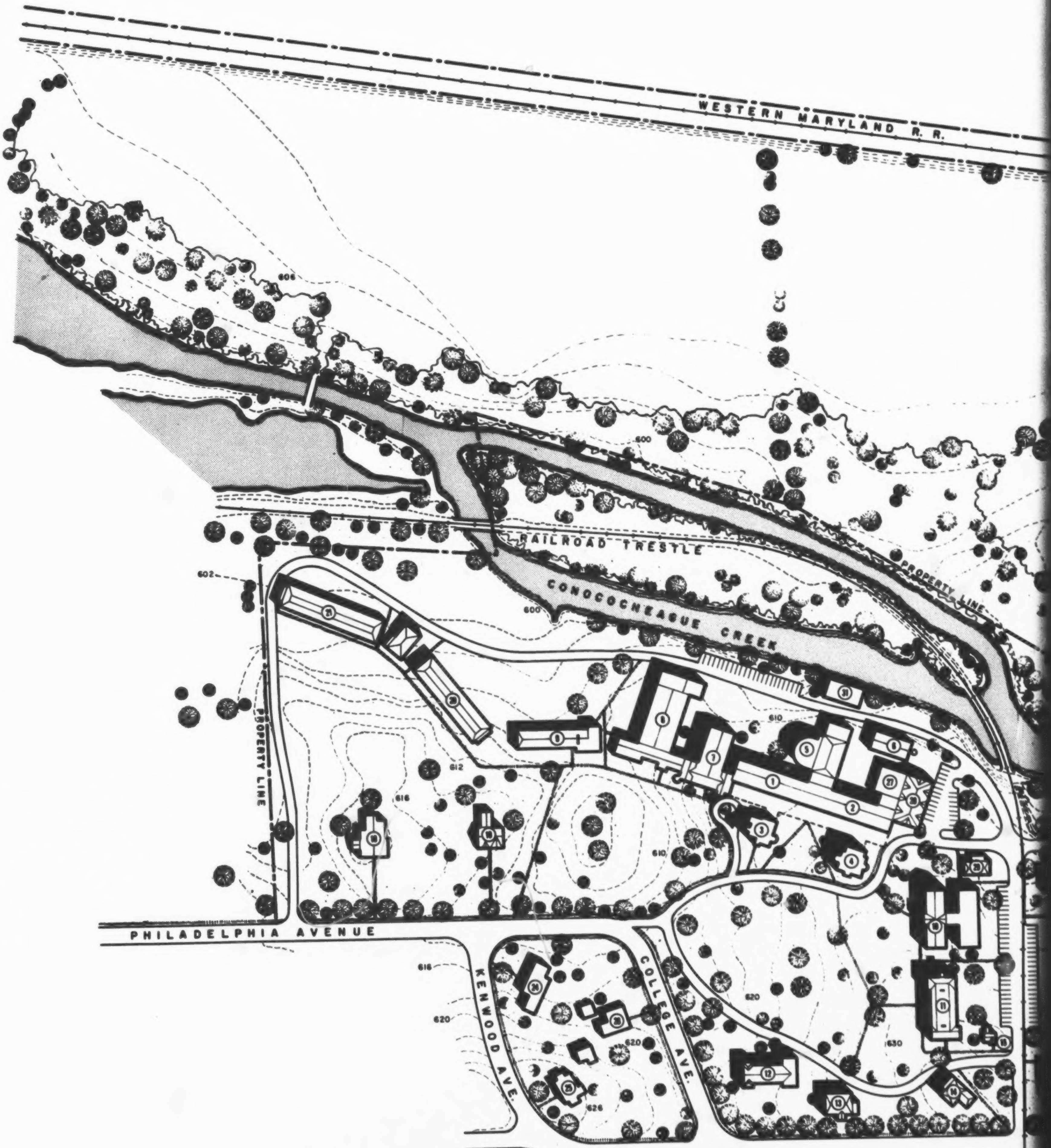
3. Circulation

The Consultants recommend moving the main entrance to the campus from its present location to a point approximately midway between Philadelphia Avenue and Edgar Avenue on College Avenue. This reduces the hazard in entering the campus and permits joining with other existing roads.

It also is recommended that the present road in front of Norland and Edgar Halls be closed to vehicular traffic, thus forcing vehicles to skirt the campus, rather than having the major campus traffic artery go through its heart. It should be mentioned that if Route 11 could be routed through Kenwood Avenue instead of College Avenue, it would be of great benefit to the College both in terms of safety considerations and in campus cohesiveness.

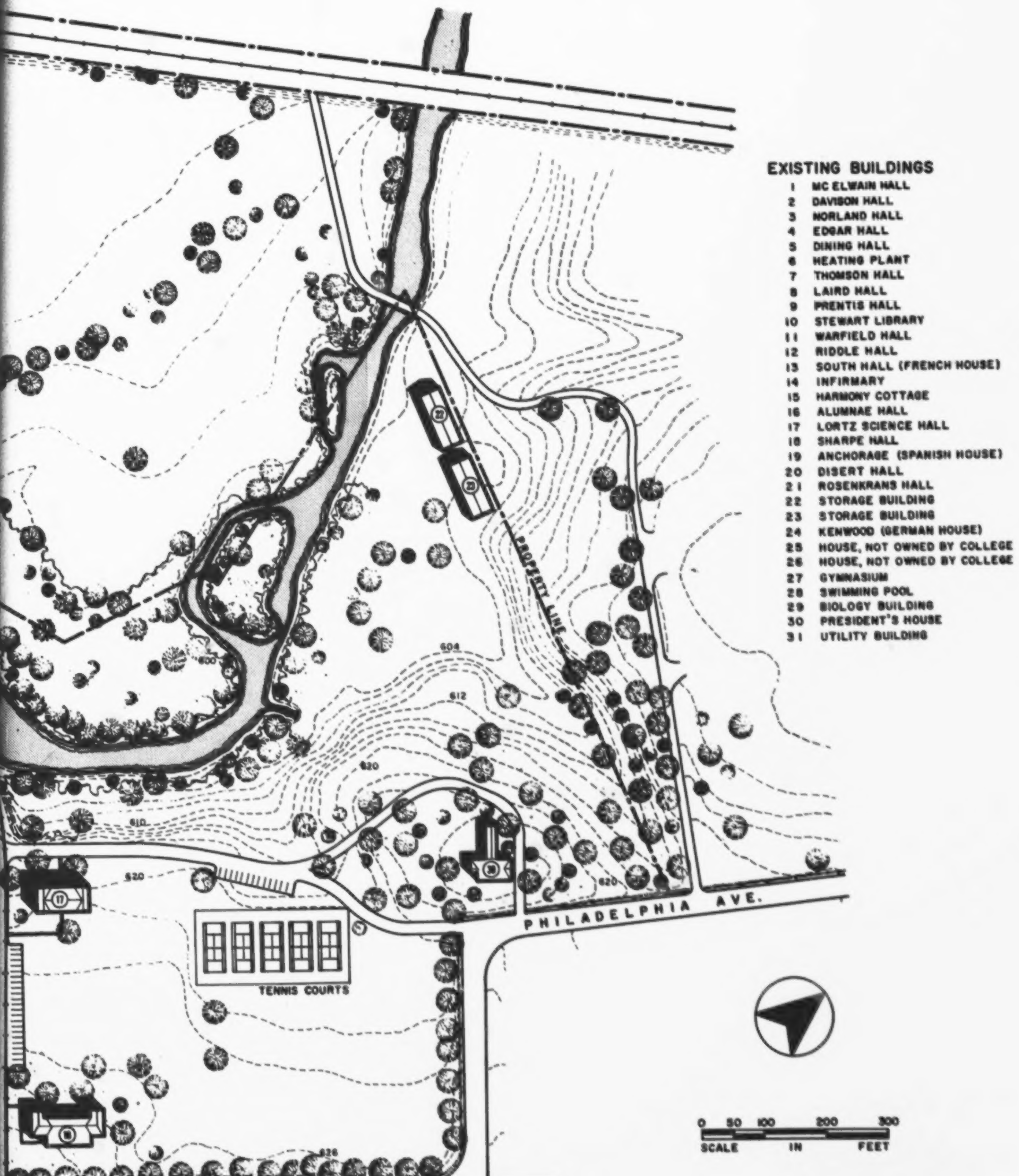
4. Proposed Building Sites

The master plan envisages placing the new dormitories in the present residential area of the campus along with the new infirmary and the


WESTERN MARYLAND R.R.
606
600
RAILROAD TRESTLE
CONOCOCHEAGUE CREEK
PROPERTY LINE
602
600
PROPERTY LINE
610
612
616
610
1
2
3
4
5
6
7
8
27
31
11
12
13
14
15
PHILADELPHIA AVENUE
618
620
KENWOOD AVE.
COLLEGE AVE.
620
626
620
630

WILSON COLLEGE
Chambersburg Pennsylvania

Campus Plan: Existing Conditions


PROPERTY LINE
604
612
620
610
600
620
626
22
23
30
17
18
PHILADELPHIA AVE.
TENNIS COURTS
EDGAR AVENUE
0 50 100 200 300
SCALE IN FEET

EXISTING BUILDINGS

1	MC ELWAIN HALL
2	DAVISON HALL
3	NORLAND HALL
4	EDGAR HALL
5	DINING HALL
6	HEATING PLANT
7	THOMSON HALL
8	LAIRD HALL
9	PRENTIS HALL
10	STEWART LIBRARY
11	WARFIELD HALL
12	RIDDLE HALL
13	SOUTH HALL (FRENCH HOUSE)
14	INFIRMARY
15	HARMONY COTTAGE
16	ALUMNAE HALL
17	LORTZ SCIENCE HALL
18	SHARPE HALL
19	ANCHORAGE (SPANISH HOUSE)
20	DISERT HALL
21	ROSENKRANS HALL
22	STORAGE BUILDING
23	STORAGE BUILDING
24	KENWOOD (GERMAN HOUSE)
25	HOUSE, NOT OWNED BY COLLEGE
26	HOUSE, NOT OWNED BY COLLEGE
27	GYMNASIUM
28	SWIMMING POOL
29	BIOLOGY BUILDING
30	PRESIDENT'S HOUSE
31	UTILITY BUILDING

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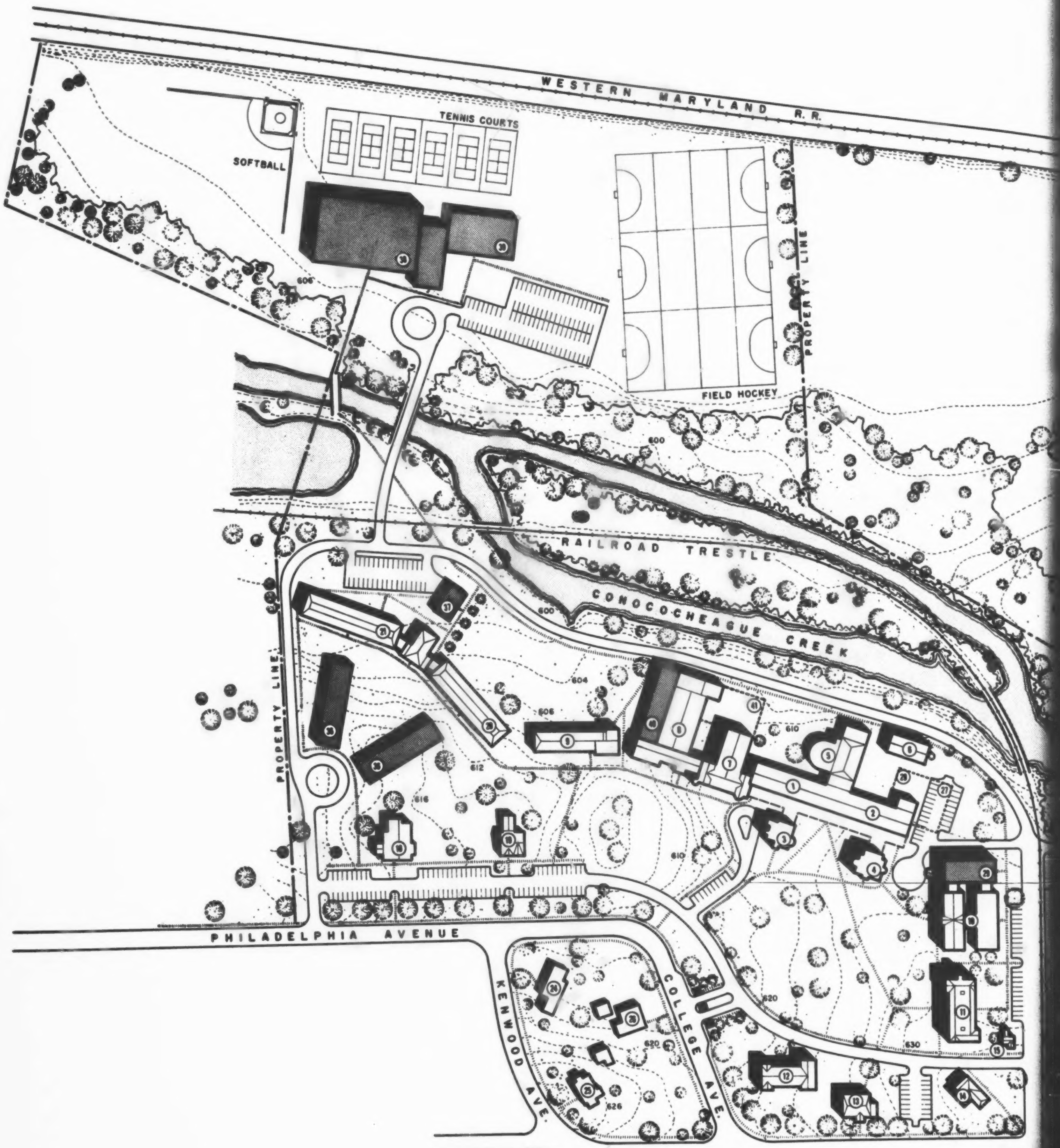
WESTERN MARYLAND R.R.
TENNIS COURTS
SOFTBALL
FIELD HOCKEY
PROPERTY LINE
RAILROAD TRESTLE
CONOCOCHEAGUE CREEK
PROPERTY LINE
PHILADELPHIA AVENUE
KENWOOD AVE.
COLLEGE AVE.
606
600
604
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610
620
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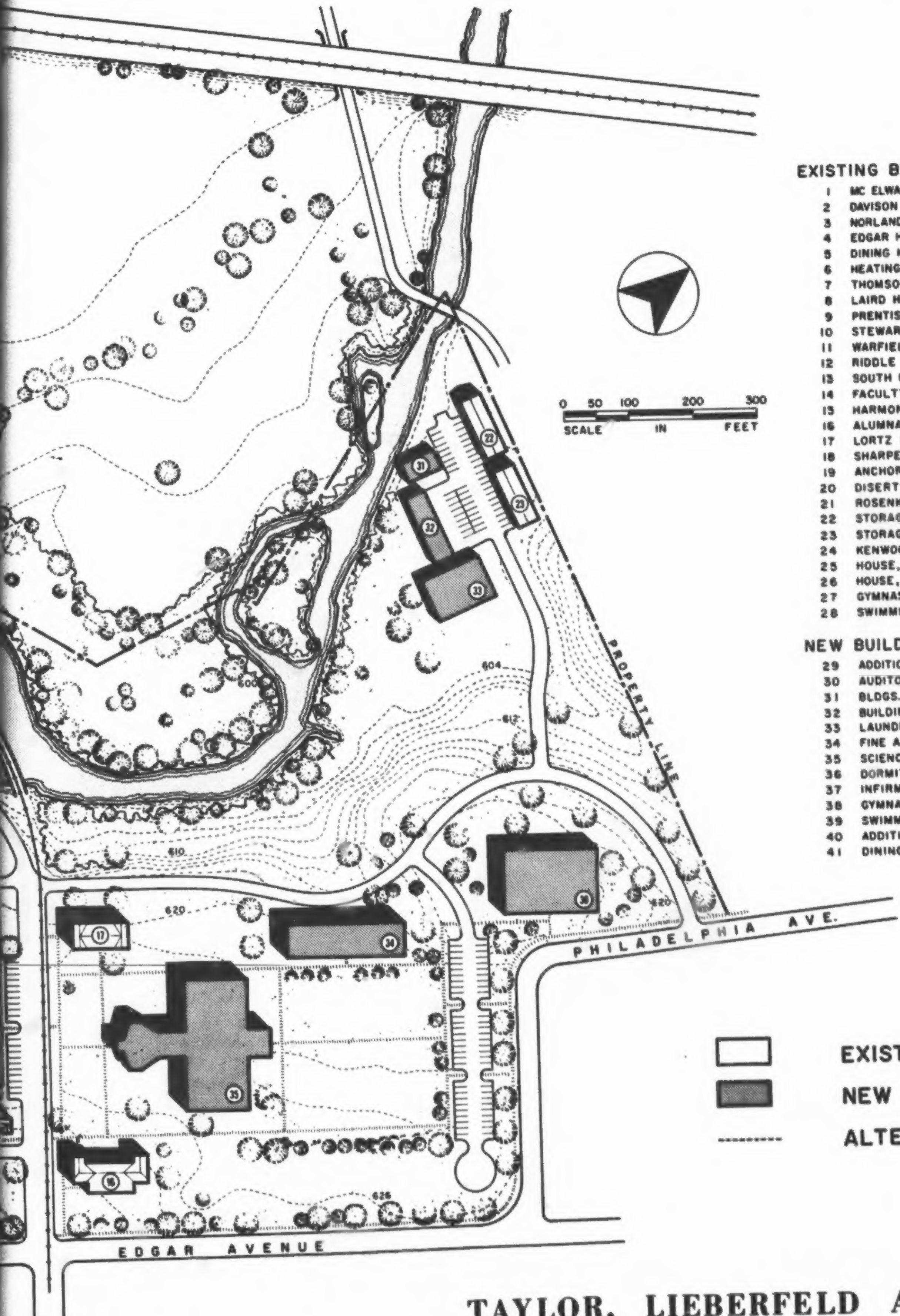
630

WILSON COLLEGE

Chambersburg Pennsylvania

Master Plan of Physical Plant Development


0 50 100 200 300
SCALE IN FEET
PROPERTY LINE
PHILADELPHIA AVE.
EDGAR AVENUE
604
600
612
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620
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36
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35
16

EXISTING BUILDINGS

1 MC ELWAIN HALL
2 DAVISON HALL
3 NORLAND HALL
4 EDGAR HALL
5 DINING HALL
6 HEATING PLANT
7 THOMSON HALL
8 LAIRD HALL
9 PRENTIS HALL
10 STEWART LIBRARY
11 WARFIELD HALL
12 RIDDLE HALL
13 SOUTH HALL (FRENCH HOUSE)
14 FACULTY CLUB
15 HARMONY COTTAGE
16 ALUMNAE HALL
17 LORTZ SCIENCE HALL
18 SHARPE HOUSE
19 ANCHORAGE (SPANISH HOUSE)
20 DISERT HALL
21 ROSENKRANS HALL
22 STORAGE BUILDING
23 STORAGE BUILDING
24 KENWOOD (GERMAN HOUSE)
25 HOUSE, NOT OWNED BY COLLEGE
26 HOUSE, NOT OWNED BY COLLEGE
27 GYMNASIUM
28 SWIMMING POOL

NEW BUILDINGS

29 ADDITION TO LIBRARY
30 AUDITORIUM
31 BLDGS. AND GNDS. (STEEL ART STUDIO)
32 BUILDINGS AND GROUNDS
33 LAUNDRY
34 FINE ARTS CENTER
35 SCIENCE CENTER
36 DORMITORIES
37 INFIRMARY
38 GYMNASIUM
39 SWIMMING POOL
40 ADDITION TO LAIRD
41 DINING HALL

☐ EXISTING BUILDINGS
▨ NEW BUILDINGS
--------- ALTERNATE PROPOSALS

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required addition to Laird Hall, the major portion of which is to be converted to use as a Student Center.

Two new dormitories are shown on the plan. A third, if added on the present site, would require removal of Sharpe House. This can be avoided if additional property can be obtained, as shown on an overlay prepared by the Consultants but not found in this report.

It is recommended that the present building housing the Department of Buildings and Grounds be removed eventually, and this Department housed in the area of the present storage buildings on the northernmost edge of the campus, along with the laundry.

The addition to the library will occupy the site presently occupied by the Biology Building, the Fine Arts Building will be located approximately on the site of the present tennis courts, and the auditorium on the site of the present President's Residence.

If the College should decide to provide apartments for faculty members, it is not recommended that such buildings be placed on the campus proper, because of the lack of ground space, but that they be located in other areas in Chambersburg.

5. Landscaping Considerations

The development of landscaping to reinforce the master plan and to create a suitable campus environment will be the work of many years. The plan included with this report can only suggest some of the key aspects. It is believed that long-range capital budgeting should provide for landscape development on a parallel with building construction.

In developing the recommended building locations shown on the master plan, the Consultants have been cognizant of the major existing trees. Although no comprehensive tree survey was available, the Consultants believe that the master plan does not involve removal of any important trees.

CHAPTER 11

BUDGET COST ESTIMATES

This chapter presents budgetary estimates of the magnitude of the costs of achieving the building occupancy patterns and phased development program detailed in Chapter 10. The estimates list each trade separately.

It should be noted that the cost of changes and additions to the utilities systems on the campus are not included in these estimates. The costs of water, electricity, sewage facilities, and so forth, will be additional to those included here. These are likely to be substantial items in the case of the new facilities for physical education, and for relocating the laundry.

The estimates are based building costs only, and do not include moveable furniture and equipment. Union labor rates are assumed. It will be noted that the estimates are for the 1,000 enrollment level. A square foot cost was thus established, and then applied to the square footages for the 800 and 1,200 enrollment levels to arrive at the budget estimates for these planning targets.

The estimates for alterations are based on rough sketches made by the Consultants to test the feasibility of obtaining the proper rooms, in existing buildings to be altered, to fit the various space programs. When actual plans are drawn by architects, somewhat different arrangements may be made. However, it is believed that the amount of partition changes and other alterations will be substantially the same as those on which the estimates in this chapter are based. It should also be noted that the figures in this chapter are in 1967 dollars. These figures should be adjusted over the years as the development of the campus takes place, to compensate for inflationary or deflationary trends.

The estimates are organized in the four phases outlined in the previous chapter of this report, and are followed by a table which summarizes the costs associated with the entire development program. This chapter concludes with an estimate of the alternate mentioned in the last chapter: construction of additional dining facilities adjacent to Laird and Thomson Halls.

11-1. Wilson College. Phase A; Budget Cost Estimate for Theater-Recital Hall-Auditorium at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Two-story stone faced building, concrete foundation, steel or concrete superstructure.

Interior: Block partitions, acoustical ceiling, plaster walls and carpeting in auditorium, exposed block partitions and vinyl asbestos tile in other areas; estimate includes auditorium seating, folding partition and stage lighting and equipment.

No.	Item	Amount (1967 dollars)
1.	Excavation	14200
2.	Concrete foundation	57800
3.	Superstructure	108000
4.	Masonry	145500
5.	Roofing and sheet metal	20700
6.	Windows	25000
7.	Miscellaneous iron	29700
8.	Lath and plaster	27000
9.	Acoustical tile	12000
10.	Resilient flooring	10800
11.	Wood stage	5400
12.	Carpeting - theater	17300
13.	Lobby floor	8000
14.	Ceramic tile	4000
15.	Hollow metal work	8400
16.	Hardware	4200
17.	Glass and glazing	3300
18.	Caulking	3000
19.	Ornamental work	41600
20.	Carpentry and millwork	23000
21.	Toilet partitions and accessories	1500
22.	Painting	13500
23.	Lobby treatment	10000
24.	Auditorium seating	45600
25.	Stage equipment and lighting	50000
26.	Folding partition	15000
27.	Plumbing	34000
28.	Heating, ventilating and air-conditioning	141800
29.	Electrical	128000
	Total Cost[a]	1008300

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[a] Total cost per square foot $37.34.

11-2. Wilson College. Phase A; Budget Cost Estimate for Fine Arts Center at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure:	Two-story stone building, concrete foundation, steel or concrete superstructure.
Interior:	Block partitions, acoustical tile hung ceilings, vinyl asbestos floors; estimate includes air conditioning entire building.

No.	Item	Amount (1967 dollars)
1.	Excavation	5900
2.	Concrete foundation	19600
3.	Superstructure	70500
4.	Masonry	88900
5.	Roofing and sheet metal	9800
6.	Windows	20100
7.	Miscellaneous iron	6000
8.	Lath and plaster	18000
9.	Acoustical tile	15700
10.	Resilient flooring	7800
11.	Ceramic tile	2000
12.	Hollow metal work	7500
13.	Hardware	2500
14.	Glass and glazing	2400
15.	[illegible]	1000
16.	[illegible] work	15000
17.	[illegible] and millwork	17000
18.	Toilet partitions and accessories	1100
19.	Painting	7800
20.	Plumbing	20000
21.	Heating, ventilating and air conditioning	70500
22.	Electrical	47000
	Total Cost[a]	456100

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[a] Total cost per square foot $29.11

11-3. Wilson College. Phase A; Budget Cost Estimate for Infirmary at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: One-story stone building, concrete foundation, wall bearing walls, steel or concrete roof.

Interior: Block and plaster partitions, acoustical tile hung ceiling, vinyl asbestos flooring, air conditioning, includes only built in furniture such as nurses station and pantry equipment.

No.	Item	Amount (1967 dollars)
1.	Excavation	3000
2.	Concrete foundation	10000
3.	Superstructure	12000
4.	Masonry	92100
5.	Roofing and sheet metal	6000
6.	Windows and glazing	6000
7.	Miscellaneous iron	1000
8.	Lath and plaster	9000
9.	Acoustical tile	6000
10.	Resilient flooring	3000
11.	Ceramic tile	2000
12.	Hollow metal work	4500
13.	Hardware	1500
14.	Caulking	300
15.	Ornamental work	2000
16.	Carpentry and millwork	2000
17.	Toilet accessories	400
18.	Painting	2700
19.	Laboratory and nurses' station cabinets	4000
20.	Pantry equipment	4500
21.	Plumbing	20000
22.	Heating, ventilating and air conditioning	21100
23.	Electrical	15100
	Total Cost[a]	178200

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[a] Total cost per square foot $29.55.

11-4. Wilson College. Phase A; Budget Cost Estimate of Outlays for Vehicular Bridge and Road to North Campus

Assumptions for Estimating

Structure: Concrete or steel bridge with intermediate support.

No.	Item	Quantity	Unit	Unit Price	Amount
					(1967 dollars)
1.	Borrowed fill	9500	CY	1.50	14200
2.	Clearing and grubbing	LS	--	--	800
3.	Grading	LS	--	--	2000
4.	Road - Bituminous paving	3000	SY	3.25	9850
5.	Parking - Bituminous paving	2900	SY	2.75	8100
6.	Curbs - Bituminous paving	1250	LF	1.20	1500
7.	Concrete sidewalks	1650	SF	.60	1000
8.	Bridge	LS	--	--	60000
	Total Cost				97400

N.B. CY = cubic yard
LF = linear feet
SY = square yard
SF = square feet

11-5. Wilson College. Phase A; Budget Cost Estimate for Gymnasium at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: One-story stone faced building, concrete foundation, steel superstructure.

Interior: Block partitions, wood floors, vinyl asbestos tile circulation area; estimate includes folding gym seating and three squash courts.

No.	Item	Amount (1967 dollars)
1.	Excavation	13600
2.	Concrete foundation	68100
3.	Superstructure	119200
4.	Masonry	53300
5.	Roofing and sheet metal	34000
6.	Windows	25000
7.	Miscellaneous iron	6000
8.	Lath and plaster	18200
9.	Acoustical tile	16400
10.	Resilient flooring	9000
11.	Wood flooring	24000
12.	Ceramic tile	25000
13.	Hollow metal work	9000
14.	Hardware	3000
15.	Glass and glazing	5000
16.	Caulking	2000
17.	Ornamental work	14000
18.	Carpentry and millwork	17000
19.	Toilet partitions and accessories	2000
20.	Painting	12000
21.	Spectator seating	7500
22.	Squash courts	48000
23.	Miscellaneous	12000
24.	Lockers	12000
25.	Plumbing	38000
26.	Heating and ventilating	85000
27.	Electrical	76700
	Total Cost[a]	855000

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[a] Total cost per square foot $25.09.

11-6. Wilson College. Phase A; Budget Cost Estimate of Swimming Pool

Assumptions for Estimating

Structure:	One-story stone faced building, poured concrete pool and foundation, steel or concrete superstructure with a precast concrete roof.
Interior:	Ceramic tile pool and deck, folding seating. Cost of joint lockers and toilet facilities for pool and gymnasium are included in Table 11-5.

No.	Item	Amount (1967 dollars)
1.	Excavation	12000
2.	Concrete foundation	39000
3.	Superstructure	45000
4.	Masonry	90500
5.	Roofing and sheet metal	9900
6.	Curtain wall	15000
7.	Miscellaneous iron	3000
8.	Lath and plaster	1000
9.	Acoustical tile	18000
10.	Ceramic tile	27000
11.	Hollow metal work	3000
12.	Hardware	1000
13.	Caulking	900
14.	Ornamental work	5000
15.	Painting	2000
16.	Folding seating	3800
17.	Pool equipment	6000
18.	Plumbing	30000
19.	Heating and ventilating	40000
20.	Electrical	27000
	Total Cost[a]	379100

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[a] Total cost per square foot $37.90.

11-7. Wilson College. Phase A; Budget Cost Estimate for Alterations to Lortz Hall at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building to be left unaltered.

Interior: Minimum changes in partitions, plumbing and heating. New acoustical tile ceiling, vinyl asbestos flooring, and lighting; includes laboratory built-in furniture.

No.	Item	Amount (1967 dollars)
1.	Demolition	13000
2.	Masonry partitions	7000
3.	Acoustical tile	12000
4.	Resilient flooring	4800
5.	Miscellaneous items	15000
6.	Hollow metal work	4000
7.	Hardware	2000
8.	Carpentry and millwork	10000
9.	Painting	4500
10.	Patching	7000
11.	Built-in cabinets	20000
12.	Plumbing	15000
13.	Heating and ventilating[a]	20000
14.	Electrical	21000
	Total Cost	158300

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[a] Air conditioning of three laboratories.

11-8. Wilson College. Phase A; Budget Cost Estimate for Alterations to Warfield Hall, Rooms 101 and 401 at Target Enrollments of 800, 1,000 and 1,200 Students

Assumptions for Estimating

Structure: Exterior and structure of building, with the exception of a new window for Room 101, to be left unaltered.

Interior: Minimum changes in partitions, lighting, heating, new woodwork, etc., to effect new space requirements.

No.	Item	Amount (1967 dollars)
1.	Demolition	1400
2.	Masonry partitions	1500
3.	New window	1000
4.	Lath and plaster	1000
5.	Acoustical tile	2600
6.	Blackboards	780
7.	Hollow metal work	640
8.	Hardware	200
9.	Carpentry and millwork	550
10.	Painting	1130
11.	Patching	1300
12.	Heating and ventilating	1000
13.	Electrical	3300
	Total Cost	16400

11-9. Wilson College. Phase A; Budget Cost Estimate for Alterations to Edgar Hall at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building left unaltered.

Interior: Minimum change in partitions, lighting, heating, etc.

No.	Item	Amount (1967 dollars)
1.	Demolition	200
2.	Masonry partition	300
3.	Bank screens	400
4.	Carpentry and millwork	500
5.	Painting	300
6.	Electrical	300
	Total Cost	2000

11-10. Wilson College. Budget Cost Estimate for Demolition of Obsolete Buildings at Target Enrollments of 800, 1,000 and 1,200 Students

Assumptions for Estimating

Structure: Entire buildings to be demolished and leveled to ground. Estimate does not include removal of foundations.

No.	Building	Amount (1967 dollars)
1.	Biology Building	8000
2.	President's Residence	5500
3.	Gymnasium and Pool	21000[a]
4.	Old Buildings and Grounds Structure	4500

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[a] Includes $10,000 to face exposed, unfinished walls of Davison Hall.

11-11. Wilson College. Phase A; Budget Cost Estimate of Outlays for Changing Entrance to Campus

No.	Item	Quantity	Unit	Unit Price	Amount
					(1967 dollars)
1.	Remove existing road	1700	SY	2.00	3400
2.	Remove trees and shrubbery	LS	--	--	2000
3.	Remove sidewalk and curbing	1200	SF	.25	300
4.	Grading	2	A	1200.00	2400
5.	Roads - bituminous paving	2440	SY	3.25	7900
6.	Parking - bituminous paving	3670	SY	2.75	10100
7.	Curbs - bituminous paving	1650	LF	1.20	2000
8.	Concrete sidewalks	5000	SF	.60	3000
9.	Broadening of College Avenue	--	--	--	1000
10.	Special entrance	LS	--	--	10000
11.	Planting shrubbery	LS	--	--	9000
12.	Top soil and seeding	1.5	A	750.00	1100
	Total Cost				52200

N.B. CY = cubic yard; LF = linear feet; LS = lump sum; SY = square yard; A = acre; SF = square feet.

11-12. Wilson College. Phase B; Budget Cost Estimate of Addition to Laird Hall (Student Center) at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: One-story stone faced building with a full basement, concrete foundation, steel or concrete superstructure.

Interior: Block partitions, acoustical tile hung ceiling, vinyl asbestos flooring, plaster and some decorative treatment in lounges; estimate includes bowling alleys and snack bar kitchen equipment.

No.	Item	Amount (1967 dollars)
1.	Excavation and underpinning	14000
2.	Concrete foundation	26600
3.	Superstructure	33300
4.	Masonry	37600
5.	Roofing and sheet metal	6700
6.	Windows	10000
7.	Miscellaneous iron	5000
8.	Lath and plaster	8700
9.	Acoustical tile	13300
10.	Resilient flooring	6600
11.	Ceramic tile	4000
12.	Hollow metal work	5500
13.	Hardware	3000
14.	Caulking	1000
15.	Ornamental work	10000
16.	Carpentry and millwork	8000
17.	Toilet partitions and accessories	1200
18.	Painting	4000
19.	Bowling alleys	50000
20.	Snack bar kitchen	10000
21.	Decoration	15000
22.	Plumbing	12000
23.	Heating, ventilating and air conditioning	53300
24.	Electrical	40000
	Total Cost[a]	378800

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[a] Total cost per square foot $28.44.

11-13. Wilson College. Phase B; Budget Cost Estimate for Laundry Building at Target Enrollments of 800, 1,000 and 1,200 Students

Assumptions for Estimating

Structure: One-story block building, concrete foundation, steel or concrete superstructure.

Interior: Block partitions, exposed ceilings, concrete floor, lighting and unit heaters. Estimate does not include laundry equipment or installation.

No.	Item	Amount (1967 dollars)
1.	Excavation	2500
2.	Concrete foundation	9000
3.	Superstructure	10400
4.	Masonry	12300
5.	Roofing and sheet metal	5900
6.	Windows and Glazing	3000
7.	Miscellaneous iron	2500
8.	Ceramic tile	600
9.	Hollow metal work	1200
10.	Hardware	400
11.	Caulking	200
12.	Carpentry and millwork	2000
13.	Toilet partitions and accessories	700
14.	Painting	600
15.	Plumbing	8000
16.	Heating and ventilating	7800
17.	Electrical	10400
	Total Cost[a]	77300

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[a] Total cost per square foot $14.82.

11-14. Wilson College. Phase B; Budget Cost Estimate for Addition to Library at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure:	Three-story stone faced building, concrete foundation, steel or concrete superstructure.
Interior:	Block partitions, acoustical tile, hung ceilings, vinyl asbestos floors and air conditioning.

No.	Item	Amount (1967 dollars)
1.	Demolition	4000
2.	Excavation	3900
3.	Concrete foundation	15500
4.	Superstructure	50000
5.	Masonry	68400
6.	Roofing and sheet metal	4200
7.	Curtain wall	28800
8.	Miscellaneous iron	8000
9.	Lath and plaster	2000
10.	Acoustical tile	12000
11.	Resilient flooring	6000
12.	Ceramic tile	1500
13.	Hollow metal work	6300
14.	Hardware	2800
15.	Caulking	2000
16.	Ornamental work	20000
17.	Carpentry and millwork	15000
18.	Toilet partitions and accessories	1100
19.	Painting	6300
20.	Elevator	15000
21.	Plumbing	8300
22.	Heating, ventilating and air conditioning	50300
23.	Electrical	31400
	Total Cost[a]	362800

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[a] Total cost per square foot $28.86.

11-15. Wilson College. Phase B; Budget Cost Estimate for a Dormitory at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Three-story stone faced building, concrete foundation, concrete superstructure.

Interior: Block and plaster partitions, vinyl asbestos floors, acoustical tile ceilings.

No.	Item	Amount (1967 dollars)
1.	Excavation	8000
2.	Concrete foundation	33500
3.	Superstructure	160600
4.	Masonry	201000
5.	Roofing and sheet metal	15400
6.	Windows	38000
7.	Miscellaneous iron	22000
8.	Lath and plaster	50000
9.	Acoustical tile	35000
10.	Resilient flooring	20000
11.	Lobby treatment	10000
12.	Ceramic tile	15000
13.	Hollow metal work	19500
14.	Hardware	4500
15.	Glass and glazing	6000
16.	Caulking	2000
17.	Ornamental work	10000
18.	Carpentry and millwork	12000
19.	Toilet partitions and accessories	3000
20.	Painting	16000
21.	Plumbing	80300
22.	Heating and ventilating	88000
23.	Electrical	76000
	Total Cost[a]	925800

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[a] Total cost per square foot $23.05.

11-16. Wilson College. Phase B; Budget Cost Estimate for Alterations to Alumnae Hall, Ground Floor at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building to be left unaltered.

Interior: Minimum changes in partitions, lighting, heating, etc., to effect new space requirements.

No.	Item	Amount (1967 dollars)
1.	Demolition	3000
2.	Masonry and plaster partitions	6000
3.	Acoustical tile	5300
4.	Resilient flooring	2600
5.	Patching	3000
6.	Blackboards	500
7.	Hollow metal work	1500
8.	Hardware	400
9.	Carpentry and millwork	4000
10.	Painting	2000
11.	Miscellaneous	5000
12.	Plumbing	3500
13.	Heating and ventilating	5000
14.	Electrical	10000
	Total Cost	51800

11-17. Wilson College. Phase B; Budget Cost Estimate for Alterations to Laird Hall at Target Enrollment of 1,000 Students

Assumptions of Estimating

Structure: Structure of building left unaltered but exterior is modified.

Interior: New block partitions, acoustical ceiling, vinyl asbestos flooring, lighting and air conditioning.

No.	Item	Amount (1967 dollars)
1.	Demolition	9000
2.	Masonry partitions	11200
3.	Windows	300
4.	Miscellaneous iron	2000
5.	Lath and plaster	2000
6.	Acoustical tile	12000
7.	Resilient flooring	5000
8.	Miscellaneous	8000
9.	Hollow metal work	3100
10.	Hardware	1100
11.	Ornamental work	2000
12.	Carpentry and millwork	10000
13.	Painting	3800
14.	Alter stage area	15000
15.	Plumbing	5000
16.	Heating and ventilating	17000
17.	Electrical	23100
	Total Cost	129500

11-18. Wilson College. Phase B; Budget Cost Estimate for Alterations to Thomson Hall, Basement at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building to be left unaltered.

Interior: Minimum changes in partitions. New acoustical tile ceiling, lighting and air conditioning. Estimate does not include show cases and other cabinets or displays.

No.	Item	Amount (1967 dollars)
1.	Demolition	3500
2.	Masonry partitions	3000
3.	Lath and plaster	2000
4.	Acoustical tile	3900
5.	Resilient flooring	2000
6.	Hollow metal work	1400
7.	Hardware	700
8.	Ornamental work	3000
9.	Carpentry and millwork	2000
10.	Painting	1900
11.	Patching	5000
12.	Plumbing	1000
13.	Heating, ventilating and air conditioning	16000
14.	Electrical	11000
	Total Cost	56000

11-19. Wilson College. Phase B; Budget Cost Estimate for Alterations to Old Infirmary at Target Enrollments of 800, 1,000 and 1,200 Students

Assumptions for Estimating

Structure: Exterior and structure of building to be left unaltered.

Interior: Minimum changes in partitions, plumbing, heating and lighting. Included is equipment and built-in cabinets for a short-order kitchen.

No.	Item	Amount (1967 dollars)
1.	Demolition	1000
2.	Partitions	1500
3.	Resilient flooring	1100
4.	Carpet	2400
5.	Door frames and hardware	500
6.	Patching	2000
7.	Carpentry and millwork	1000
8.	Painting	2000
9.	Kitchen	3000
10.	Plumbing	1000
11.	Heating and ventilating	500
12.	Electrical	1000
	Total Cost	17000

11-20. Wilson College. Phase B; Budget Cost Estimate for Alterations to Dining Hall, Ground Floor at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building, with the exception of a new entrance, to be left unaltered.

Interior: Minimum changes in partitions. New acoustical tile ceiling, vinyl asbestos flooring, electrical, and heating; no additional kitchen equipment.

No.	Item	Amount (1967 dollars)
1.	Demolition	4000
2.	Masonry partitions	2500
3.	Acoustical tile	3500
4.	Resilient flooring	1500
5.	New entrance	2000
6.	Patching	3000
7.	Hollow metal work	600
8.	Hardware	200
9.	Painting	800
10.	Heating and ventilating	5000
11.	Electrical	6000
12.	Plumbing	3000
13.	Serving pantry	7000
14.	Ceramic tile	200
	Total Cost	41100

11-21. Wilson College. Phase B; Budget Cost Estimate for Relocation of Art Studio at Target Enrollments of 800, 1,000 and 1,200 Students

Assumptions for Estimating

Structure: Steel building to be dismantled and relocated on a new concrete foundation.

Interior: No partitions or insulation. Minimum lighting and heating.

No.	Item	Amount (1967 dollars)
1.	Dismantling and moving	2800
2.	New foundations	3000
3.	Assemble	2200
4.	Insulation	1800
5.	Electric	1000
6.	Heating	500
7.	Painting	700
	Total Cost	12000

11-22. Wilson College. Phase C; Budget Cost Estimate for New Buildings and Grounds Building at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Two-story block building, concrete foundation. Steel or concrete superstructure.

Interior: Block partitions, exposed ceilings and concrete floor.

No.	Item	Amount (1967 dollars)
1.	Excavation	2800
2.	Concrete foundation	7400
3.	Superstructure	20000
4.	Masonry	18700
5.	Roofing and sheet metal	4000
6.	Windows and glazing	2000
7.	Miscellaneous iron	7000
8.	Lath and plaster	500
9.	Acoustical tile	400
10.	Resilient flooring	300
11.	Overhead doors	2000
12.	Ceramic tile	1000
13.	Hollow metal work	2000
14.	Hardware	800
15.	Caulking	500
16.	Carpentry and millwork	5000
17.	Toilet partitions and accessories	400
18.	Painting	2200
19.	Plumbing	6000
20.	Heating and ventilating	12000
21.	Electrical	18000
	Total Cost[a]	113000

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[a] Total cost per square foot $15.32.

11-23. Wilson College. Phase C; Budget Cost Estimate for Alteration of Davison Hall, Ground Floor at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: Exterior and structure of building to be left unaltered.

Interior: New block partition, acoustic tile ceiling, vinyl asbestos flooring and lighting.

No.	Item	Amount (1967 dollars)
1.	Demolition	6000
2.	Masonry partitions	10000
3.	Acoustical tile	4000
4.	Resilient flooring	2500
5.	Patching	3000
6.	Hollow metal work	2500
7.	Hardware	1000
8.	Carpentry and millwork	1000
9.	Painting	2000
10.	Miscellaneous	3000
11.	Relocations	2000
12.	Heating and ventilating	8000
13.	Electrical	10000
	Total Cost	55000

11-24. Wilson College. Budget Cost Estimate of Outlays for Site Development at Target Enrollments of 800, 1,000 and 1,200 Students

No.	Item	Quantity	Unit	Unit Price	Amount (1967 dollars)
1.	Clearing and grubbing	9	AC	1000.00	9000
2.	Excavation and removal	--	--	--	20000
3.	Moving top soil	6000	CY	1.00	6000
4.	Remove existing roads and parking areas	4000	SY	2.00	8000
5.	Borrowed fill	5000	CY	1.50	7500
6.	Grading	14	AC	1200.00	16800
7.	Site drainage	LS	--	--	20000
8.	Roads - Bituminous paving and base	3600	SY	3.25	11700
9.	Parking - Bituminous paving and base	7300	SY	2.75	20100
10.	Roads - Bituminous, existing base	2800	SY	2.25	6300
11.	Curbs - Bituminous	5300	LF	1.20	6400
12.	Concrete sidewalks	29000	SF	.60	17400
13.	Tennis courts	6	EA	7000.00	42000
14.	Chain link fencing	1100	LF	12.00	13200
15.	Field hockey	3	EA	1400.00	4200
16.	Softball field	1	EA	7500.00	7500
17.	Planting trees and shrubbery	LS	--	--	30000
18.	Top soil and seeding	20	AC	750.00	15000
19.	Utility connections	LS	--	--	5000
20.	Lighting outdoors	--	--	--	35000
21.	Patching and cutting fencing	--	--	--	10000
	Total Cost				311100

N.B. CY = cubic yard; LF = linear feet; LS = lump sum;
EA = each; SY = square yard; A = acre; SF = square feet

11-25. Wilson College. Summary of Budget Cost Estimates for New Buildings, Alterations and Site Development at Target Enrollments of 800, 1,000 and 1,200 Students

Item	Table Number	Target Enrollment of Students		
		800	1,000	1,200
		(1967 dollars)	(1967 dollars)	(1967 dollars)
Phase A				
New construction				
Theater-Recital Hall-Auditorium	11- 1	943800	1008300	1073200
Fine Arts Center	11- 2	372900	456100	661400
Infirmary	11- 3	157900	178200	190600
Bridge and road to North Campus	11- 4	97400	97400	97400
Gymnasium	11- 5	785600	855000	910100
Swimming pool	11- 6	373500	379100	384700
Alterations				
Lortz Hall	11- 7	158300	158300	173300
Warfield Hall	11- 8	16400	16400	16400
Edgar Hall	11- 9	--	2000	2000
Demolish Biology Building	11-10	8000	8000	8000
Demolish President's Residence	11-10	5500	5500	5500
Change entrance to campus	11-11	52000	52200	52000
Subtotal		2971300	3216500	3574600
Phase B				
New construction				
Addition to Laird Hall	11-12	320000	378800	441800
Laundry Building	11-13	77300	77300	77300
Addition to Library	11-14	303500	362800	453100
Dormitory	11-15	--	925800	638800
Alterations				
Alumnae Hall	11-16	--	51800	51800
Laird Hall	11-17	129500	129500	129500
Thomson Hall (bookstore)	11-18	54000	54000	54000
Old Infirmary (faculty club)	11-19	17000	17000	17000

Continued

11-25. Continued

Item	Table Number	Target Enrollment of Students		
		800	1,000	1,200
		(1967 dollars)	(1967 dollars)	(1967 dollars)
Phase B (continued)				
Alterations (continued)				
Dining Hall	11-20	33000	41100	57000
Relocate Art Studio	11-21	12000	12000	12000
Subtotal		946300	2050100	1932300
Phase C				
New construction				
Dormitory	11-15	--	--	638800
Building for Buildings and Grounds	11-22	103400	113000	117800
Alterations				
Davison Hall	11-23	--	55000	55000
Demolish old gymnasium and pool?	11-10	--	21000	21000
Demolish old Buildings and Grounds structure	11-10	--	4500	4500
Subtotal		103400	193500	837100
Phase D				
New construction				
Dormitory	11-15	--	--	638800
Subtotal		--	--	638800
Summary				
Construction Phases A,B,C,D		4021000	5460100	6982800
Site work[a]	11-24	311100	311100	311100
Fees and miscellaneous (7.5%)		324900	432800	547000
Total cost[b]		4657000	6204000	7840900

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[a] Site work to be completed as required during various phases.

[b] Does not include furniture, equipment and utilities.

11-26. Wilson College. Budget Cost Estimate for Alternate Dining Addition to Laird Hall at Target Enrollment of 1,000 Students

Assumptions for Estimating

Structure: One-story stone faced building, concrete foundation, steel or concrete superstructure.

Interior: Block and plaster partitions, acoustical tile ceiling, vinyl asbestos flooring, estimate includes pantry serving equipment.

No.	Item	Amount (1967 dollars)
1.	Demolition	2000
2.	Excavation	3000
3.	Concrete foundation	10000
4.	Superstructure	15000
5.	Masonry	20000
6.	Roofing and sheet metal	5600
7.	Windows	7800
8.	Miscellaneous iron	2000
9.	Lath and plaster	5000
10.	Acoustical tile	4500
11.	Resilient flooring	2000
12.	Ceramic tile	2400
13.	Hollow metal work	1500
14.	Hardware	600
15.	Caulking	300
16.	Ornamental work	5000
17.	Carpentry and millwork	2000
18.	Toilet partitions and accessories	300
19.	Painting	2300
20.	Pantry equipment	12000
21.	Plumbing	7000
22.	Heating and ventilating	12000
23.	Electrical	13000
	Total Cost[a]	135300

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[a] Total cost per square foot $29.44.

APPENDIXES

APPENDIX A

STIPULATED MAXIMUM SECTION SIZES

This section of the report lists the section sizes, by department and course, stipulated by appropriate College officials as planning parameters. These class sizes underlie some of the analyses of projected activity levels described in earlier chapters of this report.

A-1. Wilson College. Maximum Section Sizes, by Department and Course

Department and Course	Maximum Section Size Lecture	Recitation, Seminar	Laboratory
Bible & Religion			
101	NL	25	--
203	25	--	--
205	25	--	--
301	20	--	--
Classical Languages and Literature			
Greek			
101	--	15	--
105	35	--	--
201	--	15	--
Latin			
109	--	15	--
201	--	15	--
203	--	15	--
207	--	15	--
302	--	15	--
Economics			
101	30	--	--
201	--	15	--
221	--	15	--
311	--	15	--
322	--	10	--
Education			
201	45	--	--
221	25	25	--
305	25	--	--
311	--	10	--
English			
100	20	--	--
101	20	--	--
201	--	10	--
213	NL	--	--
223	25	--	--
301	--	10	--
309	20	--	--
315	25	--	--
319	25	--	--
333	25	--	--
400	--	10	--

(Continued)

A-1. (Continued)

Department and Course	Maximum Section Size		
	Lecture	Recitation, Seminar	Laboratory
Fine Arts			
101	NL	--	20
201	20	--	--
203	20	--	--
321	20	--	--
213	--	15	15
313	--	10	10
317	--	10	10
French			
101	20	--	20
201	20	--	20
205	18	--	--
207	--	15	--
209	--	15	15
301	20	--	--
303	--	15	--
305	20	--	--
307	20	--	--
400	10	--	--
Geography			
115	20	--	12
201	35	--	--
German			
101	20	--	20
201	15	--	15
205	--	12	--
209	--	10	--
301	--	10	--
309	--	10	--
History			
101	25	--	--
207	35	--	--
215	35	--	--
227	35	--	--
301	25	--	--
303	25	--	--
307	25	--	--
329	25	--	--
357	25	--	--
400	--	10	--

(Continued)

A-1. (Continued)

Department and Course	Maximum Section Size: Lecture	Maximum Section Size: Recitation, Seminar	Maximum Section Size: Laboratory
Music			
101	25	--	25
201	25	--	25
203	15	--	--
121	40	--	--
321	30	--	--
325	30	--	--
Philosophy			
201	20	--	--
202	NL	20	--
205	20	--	--
209	--	15	--
Political Science			
101	25	--	--
102	25	--	--
203	--	15	--
205	25	--	--
309	25	--	--
400	--	10	--
Psychology			
101	NL	--	20
205	20	--	--
241	--	20	--
303	--	15	--
304	--	10	10
307	--	20	--
309	30	--	--
311	--	15	15
Biology			
101	200	30	16
201	32	--	16
215	36	--	18
305	32	--	16
311	32	--	16
Chemistry			
101	NL	--	20
201	NL	--	18
203	--	--	18

(Continued)

A-1. (Continued)

Department and Course	Maximum Section Size Lecture	Recitation, Seminar	Laboratory
Chemistry (Continued)			
301	NL	--	10
305	10	--	--
309	20	--	--
Mathematics			
101	25	--	--
211	25	--	--
303	25	--	--
305	20	--	--
307	20	--	--
Physics			
101	35	--	20
204	--	8	--
351	--	6	6
Sociology & Anthropology			
101	NL	20	--
102	25	--	--
207	30	--	--
303	25	--	--
305	20	--	--
307	20	--	--
311	20	--	--
400	--	25	--
Spanish			
101	--	20	20
201	--	20	20
205	--	20	--
209	--	20	20
303	--	20	--
309	--	20	--
315	--	20	--

N.B. NL = no limit.

APPENDIX B

RECORD OF EXISTING NONRESIDENTIAL SPACE

This part of the report presents a record of the net usable nonresidential space at the College as it existed at the time of the field survey in September, 1966. Table 13-1 is organized by building and type of space.

B-1. Wilson College. Summary of Net Area

Use Category	Thompson Hall	Edgar Hall	Warfield Hall	Lortz Building	Laird Hall	Biology Building
	Building					
			(square feet)			
Office space						
Faculty offices	1895	--	5675	515	--	275
Other professional offices	630	2670	--	--	210	--
Clerical & miscellaneous	660	2540	--	--	505	--
Subtotal	3185	5210	5675	515	715	275
Library space						
Reading room, table seating	--	--	--	--	--	--
Reading room, carrels	--	--	--	--	--	--
Bookstack area	--	--	--	385	--	--
Periodicals & special collections	--	--	--	--	--	--
Work & service area	--	--	--	--	--	--
Book storage	--	--	--	--	--	--
Subtotal	--	--	--	385	--	--
Physical Education						
Lockers & miscellaneous space	--	--	--	--	--	--
Gymnasium space	--	--	--	--	--	--
Gymnasium storage	--	--	--	--	--	--
Dance studio	--	--	--	--	--	--
Swimming pool	--	--	--	--	--	--
Subtotal	--	--	--	--	--	--
Classrooms (includes auditorium & chapel)	4470	--	10880	950	5390	2200
Teaching laboratories	1630	--	605	3235	--	1540
Laboratory service	--	--	--	2390	--	765
Research	--	--	--	--	--	730
Staff & student service	5120	1915	85	--	6130	--
Food service	1225	--	--	--	--	--
Health facilities	--	--	--	--	--	--
Laundry	--	--	--	--	--	--
Subtotal	12445	1915	11570	6575	11520	5235
Total	15630	7125	17245	7475	12235	5510

Alumnae Hall	Art Studio	Stewart Memorial Library	Stewart Memorial Library Extension	Infirmary	Gymnasium	Swimming Pool	New Main Hall	Dining Hall	Total	Proposed Science Building
				(square feet)						
560	--	290	260	--	--	--	380	--	9850	2445
--	--	--	--	--	--	--	--	--	3510	--
--	--	--	--	--	--	--	--	--	3705	--
560	--	290	260	--	--	--	380	--	17065	
--	--	3385	2430	--	--	--	--	--	5815	--
--	--	--	1755	--	--	--	--	--	1755	--
--	--	1300	8475	--	--	--	--	--	10160	1690
--	--	1700	--	--	--	--	--	--	1700	--
--	--	865	210	--	--	--	--	--	1075	--
--	--	285	--	--	--	--	--	--	285	--
--	--	7535	12870	--	--	--	--	--	20790	
--	--	--	--	--	--	--	1035	--	1035	--
--	--	--	--	--	4280	--	--	--	4280	--
--	--	--	--	--	--	--	775	--	775	--
--	--	--	--	--	--	--	1990	--	1990	--
--	--	--	--	--	--	2270	--	--	2270	--
--	--	--	--	--	4280	2270	3800	--	10350	
1225	--	--	--	--	--	--	--	--	25115	8000
1690	2400	1160	--	--	--	--	--	--	12260	11165
180	--	--	--	--	--	--	--	--	3335	7310
550	--	--	--	--	885	--	--	--	2165	2260
--	--	--	--	980	--	--	--	1310	15540	--
--	--	--	--	--	--	--	--	11430	12655	--
--	--	--	--	1975	--	--	--	--	1975	--
--	--	--	--	--	--	--	--	4170	4170	--
3645	2400	1160	--	2955	885	--	--	16910	77215	
4205	2400	8985	13130	2955	5165	2270	4180	16910	125420	32870